

THE LIVING AGE.

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THE TRAVELLER'S VISION.

FROM THE GERMAN OF FREILIGRATH.

It was midway in the desert; night her dusky wing had spread,
 And my Arab guides were sleeping, snaring each his courser's bed;
 Far and near where streams of moonlight lay on Nile's time-honored plain,
 Silvery white, amid the sand-heaps, gleamed the bones of camels slain.

I lay wakeful—where my saddle made a pillow hard and cool—
 With the dried fruits of the palm-tree I had heaped its pouches full—
 I had spread my loosened caftan over knee and over breast,
 Naked sword and gun beside me: thus had laid me down to rest.

All was still—save when the embers of our sunken watch-fire stirred:
 Save when, hurrying to her homestead, screamed some wild belated bird;
 Save when, slumbering, stamped the charger, bound beside his Arab lord;
 Save when, dreaming of the battle, grasped the rider's hand his sword!

Heaven!—the trembling earth upheave! Shad-
 dowy forms are dimly seen!
 And the wild beasts fly before them far across the moonlight sheen!

Snort our steeds in deadly terror, and the startled dragoman
 Drops his ensign, murmuring wildly: " 'Tis the Spirit-caravan!"

See, they come! before the camels ghastly lead-
 ers point the way;
 Borne aloft, unveiled women their voluptuous charms display;
 And beside them lovely maidens bearing pitchers—like Rebecca—
 And behind them horsemen guarding—all are hurrying on to Mecca!

More and more! their ranks are endless! who may count them? more again!
 Woe is me!—for living camels are the bones upon the plain!
 And the brown sands, whirring wildly, in a dusky mass uprise,
 Changing into camel-drivers—men of bronze with flaming eyes.

Ay, this is the night and hour, when all wander-
 ers of the land
 Whom the whirlwind once o'ertaking, 'whelmed beneath its waves of sand;
 Whose storm-driven dust hath fanned us—crumbling bones around us lay—
 Rise and move in wan procession, by their Prophet's grave to pray!

More and more! the last in order have not passed across the plain,
 Ere the first with loosened bridle fast are flying back again.
 From the verdant inland mountain, even to Bab-el-mandeb's sands,
 They have sped ere yet my charger, wildly rearing, breaks his bands!

Courage! hold the plunging horses; each man to his courser's head!

Tremble not, as timid sheep-flocks tremble at the lion's tread.

Fear not though yon waving mantles fan you as they hasten on;

Call on Allah! and the pageant ere you look again is gone!

Patience, till the morning breezes wave again your turbans' plume;

Morning air and rosy dawning are their heralds to the tomb.

Once again to dust shall daylight doom these wanderers of the night;

See, it dawns!—a joyous welcome neigh our horses to the light!—*Chambers's Journal.*

CONSOLATIONS.

BY PARK BENJAMIN.

In the humble passage through the world which I till now have made,

I've seen more storms than sunshine and less of light than shade;

Yet sometimes a new planet has sweetly shone for me,

And sometimes a green island has risen from the sea.

My childhood knew misfortune of a strange and weary kind,

And I have always worn a chain, though not upon my mind,

And I render thanks to thee, O God! from my prison, that I live

Unshorn of that best privilege, which thou alone canst give.

I mean a soul to apprehend the beauty that is spread

Above me and around me and beneath my feeble tread;

And though I may not climb the mount or thread the winding vale,

Yet mount and vale to me impart delights that never fail.

The dewy spring-time comes to me with melody of birds,

Familiar as my sister's song and tender as her words;

I love the summer's scented blooms, and autumn's bright decay,

And winter's frozen jewels made, like hopes, to melt away.

My heart is like a river in the leafy month of June,

With a never ceasing gush of waves that chime a merry tune;

Though its surface may be broken when the gale of sorrow blows,

A living fount supplies it, and it always sings and flows.

Great cause have I for gratitude to the Giver of my life,

For love is still my talisman in danger, toil and strife;

And, though bereft of freedom in the body, I can fly

As high as heaven on wings of thought, like an eagle to the sky.—*Churchman.*

From The North British Review.

1. *Researches on Light in its Chemical Relations, embracing a consideration of all the Photographic Processes.* By Robert Hunt, F. R. S. Second Edition. 1854.
2. *Note Relative à L'Influence de la Lumière sur les Animaux.* Par M. J. Beclard. Comptes Rendus, etc., 1 Mars 1858, tom. xvi., p. 441. Paris, 1858.
3. *A Manual of Photography.* By Robert Hunt, F. R. S. Fifth Edition Revised. London and Glasgow, 1857.
4. *The Practice of Photography.* By Robert Hunt, F. R. S. London and Glasgow, 1857.
5. *On the Action of Light upon Plants, and of Plants upon the Atmosphere.* By Charles Daubeny, Esq., M.D., F. R. S., Professor of Chemistry and Botany in the University of Oxford. *Phil. Trans.*, 1836, pp. 149-163.
6. *Researches on the Influence of Light on the Germination of Seeds and the Growth of Plants.* By Mr. Robert Hunt, Secretary to the Royal Cornwall Polytechnic Society. Reports of British Association, 1842, pp. 75-80.
7. *Researches on the Influence of Light on the Germination of Seeds and the Growth of Plants.* By Mr. Robert Hunt, Secretary to the Royal Cornwall Polytechnic Society. Reports of British Association, 1844, pp. 29-32.
8. *Researches on the Influence of the Solar Rays on the Growth of Plants.* By the same. Reports of British Association, 1847, pp. 17-30.
9. *On the Influence of Physical Agents on Life.* By W. F. Edwards, M.D., F.R.S., Member of the Royal Academy of Medicine of Paris. Translated from the French by Dr. Hodgkin and Dr. Fisher. p. 504. London, 1832.
10. *The Stereoscope—its History, Theory, and Construction, with its Application to the Fine and Useful Arts, and to Education.* By Sir D. Brewster. K.H., D.C.L., F.R.S. London, 1856.
11. *The Photographic Art Journal, illustrated.* Nos. I, II, III., and IV. February, March, April, and May 1858.
12. *De L'Image Photochromatique du Spectre Solaire.* Par M. E. Becquerel. Comptes Rendus, etc., tom. xxviii., p. 200, Feb. 1849.
13. *Sur une Relation existant entre la Couleur des certaines Flammes Colorées, avec les Images Héliographiques Colorées par la Lumière.* Par M. Niepce de St. Victor. Comptes Rendus, etc., tom. xxxii., p. 834. May 1851.
14. *Second Memoire sur Heliochromie.* Par

M. Niepce de St. Victor. Comptes Rendus, etc., tom. xxxiv., p. 215.

15. *Troisième Memoire sur Heliochromie.* Par M. Niepce de St. Victor. Comptes Rendus, etc., tom. xxxv., p. 696. Nov. 1852.
16. *Memoires sur une Nouvelle Action de la Lumière.* Par M. Niepce de St. Victor. Comptes Rendus, etc., tom. xlv., p. 811, Nov. 1857, and tom. xvi., pp. 448-489, Mars 1858.
17. *Photographic Art Treasures.* Inventor, Paul Pretsch; Photographer, Roger Fenton. Nos. I. to V., folio. London, 1856, 1857.
18. *The Stereoscopic Magazine.* No I. London, June 1858.

Of all the elements which play a high part in the material universe, the light which emanates from the sun is certainly the most remarkable, whether we view it in its sanatory, scientific, or æsthetical relations. It is, to speak metaphorically, the very life-blood of nature, without which every thing material would fade and perish. It is the fountain of all our knowledge of the external universe, and it is now becoming the historiographer of the visible creation, recording and transmitting to future ages all that is beautiful and sublime in organic and inorganic nature, and stamping on perennial tablets the hallowed scenes of domestic life, the ever-varying phases of social intercourse, and the more exciting tracks of bloodshed and of war, which Christians still struggle to reconcile with the principles of their faith.

The influence of light on physical life is a subject of which we at present know very little, and one, consequently, in which the public, in their still greater ignorance, will take little interest; but the science of light, which, under the name of *Optics*, has been studied for nearly two hundred years by the brightest intellects in the Old and New World, consists of a body of facts and laws of the most extraordinary kind,—rich in popular as well as profound knowledge, and affording to educated students, male and female, simple and lucid explanations of that boundless and brilliant array of phenomena which light creates, and manifests, and develops. While it has given to astronomy and navigation their telescopes and instruments of discovery, and to the botanist, the naturalist, and the physiologist, their microscopes, simple, compound, and polarizing, it has shown to the student of nature how the juices of plants and animals,

and the integuments and films of organic bodies, elicit from the pure sunbeam its prismatic elements,—clothing, fruit, and flower with their gorgeous attire, bathing every aspect of nature in the rich and varied hues of spring and autumn,—painting the sky with azure and the clouds with gold.

Thus initiated into the mysteries of light, and armed with the secrets and powers which science has wrested from the God of Day, philosophers of our own age have discovered in certain dark rays of the sunbeam, a magic though invisible pencil, which can delineate instantaneously every form of life and being, and fix in durable outline every expression, demoniacal or divine, which the passions and intellects of man can impress upon the living clay. They have imparted to the cultivators of art their mighty secret, and thousands of travelling artists are now in every quarter of the globe recording all that earth, und ocean, and air can display,—all that man has perpetrated against the strongholds of his enemies, and all that he has more wisely done to improve and embellish the home which has been given him.

A branch of knowledge so intimately connected with our physical well-being, so pregnant with displays of the Divine wisdom and beneficence, and so closely allied in its æsthetic aspect with every interest, social and domestic, might have been expected to form a part in our educational courses, or, through the agencies of cheap literature and popular exposition, to have commanded a place in the school and in the drawing-room, and to have gilded, if not to have replaced, the frivolities of fashionable life. Such expectations, however, have not been realised. Men of science who are much in the society of the educated world, and especially of those favored classes who have the finest opportunities of acquiring knowledge, are struck with the depth of ignorance which they encounter; while they are surprised at the taste which so generally prevails for natural history pursuits, and at the passion which is universally exhibited even for higher scientific information which can be comprehended by the judgment and appropriated by the memory. The prevailing ignorance, therefore, of which we speak, is the offspring of an imperfect system of education, which has already given birth to great social evils,—to financial laws unjust to individuals and ruinous to the physical and moral health

of the community. If the public be ignorant of science, and its applications, in their more fascinating and intelligible phases; if our clergy, in their weekly homilies, never throw a sunbeam of secular truth among their people; if legislators hardly surpass their constituents in these essential branches of knowledge, how can the great interests of civilization be maintained and advanced? how are scientific men to gain their place in the social scale? and how are the material interests of a great nation, depending so essentially on the encouragement of art and science, to be protected and extended? How is England to fare, if she shall continue the only civilized nation which, amid the perpetual struggles of political faction, never devotes an hour of its legislative life to the consideration of its educational establishments and the consolidation of its scientific institutions?

Impressed with the importance of these facts, and in the hope that some remedy may be found for such a state of things, we have drawn up the following article, in order to show how much useful, and popular, and pleasing information may be learned from a popular exposition of the nature and properties of the single element of light, in its sanatory, its scientific, and its artistic or æsthetic relations. Should our more intelligent readers rise from its perusal with information which they had not anticipated, and which they had previously regarded as beyond their depth, our labor in preparing it will be amply rewarded, and we shall hope to meet them again in other surveys of the more popular branches of science.

I. In attempting to expound the *influence of light as a sanatory agent*, we enter upon a subject which, in so far as we know, is entirely new, and upon which little information is to be obtained; but, admitting the existence of the influence itself, as partially established by observation and analogy, and admitting too the vast importance of the subject in its personal and social aspects, we venture to say that science furnishes us with principles and methods by which the blessings of light may be diffused in localities where a cheering sunbeam has never reached, and where all the poisons and malaria of darkness have been undermining the soundest constitutions, and carrying thousands of our race prematurely to the grave.

The influence of light upon vegetable life

has been long and successfully studied by the botanist and the chemist. The researches of Priestley, Ingenhousz, Sennebier, and Decandolle, and the more recent ones of Carradori, Payen, and Maçaire, have placed it beyond a doubt, that the rays of the sun exert the most marked influence on the respiration, the absorption, and the exhalation of plants, and, consequently, on their general and local nutrition. Dr. Priestley tells us, "It is well known that *without light* no plant can thrive; and if it do grow at all in the dark, it is always *white*, and is in all other respects in a sick and weakly state." He is of opinion that healthy plants are in a state similar to sleep in the absence of light, and that they resume their proper functions when placed under the influence of light and the direct action of the solar rays.

In the year 1835, D. Daubeny communicated to the Royal Society a series of interesting experiments on the action of light upon plants, when the luminous, calorific, or chemical rays were made preponderant by transmission through the following colored glasses or fluids.

	Light.	Heat.	Chemical Rays.
Transparent Glass, . .	7	7	7
Orange Do. . .	6	6	4
Red Do. . .	4	5	6
Blue Do. . .	4	3	6
Purple Do. . .	3	4	6
Green Do. . .	5	2	3
Solution of Ammonia,			
Sulphate of Copper, 2	1	5	
Port Wine, . . .	1	3	0

The general result of these experiments is thus given by their author: "Upon the whole, then, I am inclined to infer, from the general tenor of the experiments I have hitherto made, that both the exhalation and the absorption of moisture by plants, so far as they depend upon the influence of light, are affected in the greatest degree by the *most luminous rays*, and that all the functions of the vegetable economy which are owing to the presence of this agent, follow, in that respect, the same law."*

This curious subject has been recently studied in a more general aspect by Mr. Robert Hunt, who has published his results in the Reports of the British Association for 1847. Not content with ascertaining, as his predecessors had done, the action of the sun's white and undecomposed light upon the germ-

ination and growth of plants, he availed himself of the discovery of the chemical or invisible rays of light, and sought to determine the peculiar influence of these rays and of the various colors of solar light upon the germination of seeds, the growth of the wood, and the other functions of plants.

In order to explain the results which he obtained, we must initiate the reader into the constitution of the white light which issues from the sun. If we admit a cylindrical beam of the sun's light through a small circular aperture into a dark room, it will form a round white spot when received on paper. Now this white beam consists of *three visible* colored beams, which when mixed or falling on the same spot, make white, and of two *invisible* beams, one of which produces heat, and the other a chemical influence called actinism, which produces chemical changes, the most remarkable of which are embodied in photographic pictures. The whole sunbeam, therefore, contains *luminous* or color-making rays, *heating* rays, and *chemical* rays.

When white light, therefore, acts upon plants, we require to know which of these rays produce any of the remarkable changes that take place; and as it is not easy to insulate the different rays and make them act separately, the inquiry is attended with considerable difficulty. By using colored glasses and colored fluids, which absorb certain rays of white light and allow others to pass, Mr. Hunt made arrangements by which he could submit plants to an excess of *red, yellow or blue* rays, or to an excess of the heating rays, or of the chemical or actinic ones. In this way, he was not able to study the pure influence of any of those rays in a state of perfect insulation, but merely the influence of a *preponderance* of one set of rays over others, which is sufficient to indicate to a certain extent their decided action. This will be better understood from a few results obtained with differently colored media.

	Light.	Heat.	Chemical Rays.
White Light contains	100	100	100
Solution of Bichromate of Potash, . . .	87	92	27
Solution of Sulphate of Chromium, . .	85	92	7
Series of Blue Glasses, .	40	72	90
Solution of Sulphate of Copper, . . .	60	54	93
Solution of Ammoniate of Copper, . . .	25	48	94

* Phil. Trans., 1836, p. 162-3.

It is very obvious* that the action of the chemical rays will be obtained from the *three* last of these colored media, and the action of the luminous and heating rays from the two first, where the chemical rays are comparatively feeble. In this way Mr. Hunt obtained the following interesting results:

1. Light prevents the germination of seeds.
2. The germination of seeds is more rapid under the influence of the chemical rays, separated from the luminous ones, than it is under the combined influence of all the rays, or in the dark.*

3. Light acts in effecting the decomposition of carbonic acid by the growing plant.

4. The chemical rays and light (or all the rays of the spectrum visible to a perfect eye) are essential to the formation of the coloring matter of leaves.

5. Light and the chemical rays, independent of the rays of heat, prevent the development of the reproductive organs of plants.

6. The radiations of heat, corresponding with the *extreme red* rays of the spectrum, facilitate the flowering of plants, and the perfecting of their reproductive principles.

In *Spring*, Mr. Hunt found that the chemical rays were the most active, and in very considerable excess, as compared with those of light and heat. As the *Summer* advanced, the light and heat increased in a very great degree relatively to the chemical rays; and in *Autumn*, the light and the chemical rays both diminish relatively to the rays of heat, which are by far the most extensive.

"In the spring," says Mr. Hunt, "when seeds germinate and young vegetation awakes from the repose of winter, we find an excess of that principle which imparts the required stimulus; in the summer, this exciting agent is counterbalanced by another possessing different powers, upon the exercise of which the structural formation of the plant depends; and in the autumnal season these are checked by a mysterious agency which we can scarcely recognize as heat, although connected with calorific manifestations, upon which appears to depend the development of the flower and the perfection of the seed."

The very curious fact of plants *bending towards the light*, as if to catch its influence,

* This important result has been confirmed by the observations, on a large scale, of the Messrs. Lawson and Sons of Edinburgh. See Hunt's *Poetry of Science*, 3d Edition, appendix, and *Researches on Light*, p. 375.

must have been frequently observed. Mr. Hunt found that, "under all ordinary circumstances, plants, in a very decided manner, bent *towards* the light;" and, what is exceedingly interesting, when the light employed was *red*, from passing through red fluid media, *the plants as decidedly bent from* it. The property of bending towards the light is strikingly exhibited by the potato; and it has been found that the *yellow* or most luminous rays are most efficacious in producing this movement, while the *red* rays, as before, produce a repulsive effect.

If light, then, is so essential to the life of plants, that they will even exert a limited power of locomotion in order to reach it, it is not unreasonable to suppose that it may be necessary, though to a less extent, for the development and growth of animals. When we look at the different classes of the inferior animals, we hardly observe any relations with light excepting those of vision; but, under the conviction that light does influence animal life, various naturalists have devoted their attention to the subject. In his chapter "on the influence of light upon the development of the body," Dr. W. F. Edwards has given us some important information on the effect of light in the development of animals, or in those changes of form which they undergo in the interval between conception and fecundation, and adult age,—a process which, previously to birth, is generally carried on in the dark. "There are, however, animals," says Dr. Edwards, "whose impregnated eggs are hatched, notwithstanding their exposure to the rays of the sun. Of this number are the Batrachians (frogs). I wished to determine what influence light, independently of heat, might exercise upon this kind of development." With this view, he placed some frog's spawn in water, in a vessel rendered impervious to light, and some in another vessel which was transparent. They were exposed to the same temperature, but the rays of the sun were admitted to the transparent vessel. *All the eggs exposed to light were developed in succession, but none of those in the dark did well.*

As almost all animals are more or less exposed to light after birth, Dr. Edwards thought it would be interesting to determine the peculiar effect of light upon *the development of the body*. As all animals, in growing, gradually change their form and propor-

tions, and make it difficult to observe slight shades of modification, he chose for his experiments species among the vertebrata whose development presents precise and palpable differences. These conditions are combined in the highest degree in the frog. In its first period it has the form and even the mode of life of a fish, with a tail and gills, and without limbs. In its second period it is completely metamorphosed into a reptile, having acquired four limbs, and lost its tail and gills and all resemblance to a fish. Dr. Edwards employed the tadpoles of the *Rana obstetricians*, and he found that all those which enjoyed the presence of the light underwent the change of form appertaining to the adult. "We see, then," says Dr. Edwards, "that the action of light tends to develop the different parts of the body in that just proportion which characterizes the type of the species. This type is well characterized only in the adult. The deviations from it are the more strongly marked the nearer the animal is to the period of its birth. If, therefore, there were any species existing in circumstances unfavorable to their further development, they might possibly long subsist under a type very different from that which nature had designed for them. The *Proteus anguiformis* appears to be of this number. The facts above mentioned tend to confirm this opinion. The *Proteus anguiformis* lives in the subterraneous waters of Carniola, where the absence of light unites with the low temperature of those lakes in preventing the development of the peculiar form of the adult."

The experiments of M. Morren on the animalcules generated in stagnant waters, and those of M. Moleschott on the respiration of frogs as measured by the quantity of carbonic acid gas which they exhale, confirm the general results obtained by Dr. Edwards; but the most important researches on the subject have just been published by M. Beclard, in the Note which appears among the works at the head of this article. During the last four years, he has been occupied with a series of experiments on the influence of the white and colored light of the spectrum, on the principal functions of nutrition; and, in the Note referred to, he has presented to the Academy of Sciences, in a concise form, some of the more important results which he has obtained.

Having placed the eggs of the fly (*Musca*

caritaria) in six bell glasses, violet, blue, red, yellow, transparent, and green, he found, at the end of four or five days, that the worms were most developed in the violet and blue glasses, and least in the green; the influence of the other colors diminishing in the order we have named them from violet to green. Between these extremes the worms developed were as three to one both with respect to bulk and length.

In studying the influence of the differently colored rays upon frogs, which have an energetic cutaneous respiration, equal and often superior to their pulmonary respiration, M. Beclard found that the same weight of frogs produced more than twice the quantity of carbonic acid under the green than under the red glass. When the same frogs were skinned, the opposite result was obtained. The carbonic acid was then greater in the red than in the green rays.

In the number of experiments on the cutaneous exhalations of the vapor of water from frogs, the quantity was one-half less in darkness than in white or violet light, in which the exhalation was the same.*

We come now to consider the influence of light upon the human frame, physical and mental, in health and disease, in developing the perfect form of the adult, and in preserving it from premature decay. We regret to find that our knowledge on these points is so extremely limited, and we are surprised that physicians and physiologists should not have availed themselves of their numerous opportunities, in hospitals, prisons, and mad-houses, of studying so important a subject. We must grope our way, therefore, among general speculations and insulated facts, in the hope of arriving at some positive results; and we have no doubt that the direct influence of light over the phenomena of life, will not be found limited to the vegetable kingdom and the lower races of the animal world.

Man, in his most perfect type, is doubtless to be found in the temperate regions of the

* "Professor E. Forbes and Mr. Couch have both remarked that the vegetables and animals near the surface of the sea are brilliantly colored, but that they gradually lose the brightness of their hue as they descend, until the animals of the lowest zone are found to be nearly colorless. . . . Organization and life exist only at the surface of our planet, and under the influence of light. Those depths of the ocean at which an everlasting darkness prevail is the region of silence and eternal death."—Hunt's *Researches*, etc., Appendix No. vii., p. 386.

globe, where the solar influences of light, heat, and chemical rays are so nicely balanced. Under the scorching heat of the tropics, man cannot call into exercise his highest powers. The calorific rays are all-powerful there, and lassitude of body and immaturity of mind are its necessary results; while in the darkness of the Polar regions the distinctive characters of our species almost disappear in the absence of those solar influences which are so powerful in the organic world.

It is well known to all who are obliged to seek for health in a southern climate, that an ample share of light is considered necessary for its recovery. In all the hotels and lodging-houses in France and Italy the apartments with a south exposure are earnestly sought for, and the patient, under the advice of his physician, strives to fix himself in these genial localities. The salutary effect, however, thus ascribed to light, might arise from the greater warmth which accompanies the solar rays; but this can hardly be the case in mild climates, or indeed in any climate where a fixed artificial temperature can be easily maintained. Something, too, is doubtless owing to the cheering effect of light upon an invalid; but this effect is not excluded from apartments so situated, that out of a western or a northern window we may see the finest scenery illuminated by the full blaze of a meridian sun.

While our distinguished countryman, Sir James Wyllie, late physician to the Emperor of Russia, resided in St. Petersburg, he studied the effect of light as a curative agent. In the hospitals of that city there were apartments entirely without light; and upon comparing the number of patients who left these apartments cured, he found that they were only one-fourth the number of those who went out cured from properly lighted rooms. In this case the curative agency could not reasonably be ascribed either to the superior warmth or ventilation of the well-lighted apartments, because in all such hospitals the introduction of fresh air is a special object of attention, and the heating of wards without windows is not difficult to accomplish.

But though the records of our great hospitals assist us in our present inquiry, yet facts, sufficiently authentic and instructive, may be gathered from various quarters. In the years of cholera, when this frightful disease nearly

decimated the population of some of the principal cities in the world, it was invariably found that the deaths were more numerous in narrow streets and northern exposures, where the salutary beams of light and actinism had seldom shed their beneficial influences. The resistless epidemic found an easy prey among a people whose physical organization had not been matured under those benign influences of solar radiation which shed health and happiness over our fertile plains, our open valleys, and those mountain sides and elevated plateaus where man is permitted to breathe in the brighter regions of the atmosphere.

Had we the means of investigating the history of dungeon life—of those noble martyrs whom ecclesiastical and political tyranny have immured in darkness—or of those wicked men whom law and justice have rendered it indispensable to separate from their species, we should find many examples of the terrible effects which have been engendered by the exclusion of all those influences which we have shown to be necessary for the nutrition and development, not only of plants, but of many of the lower animals.

Dr. Edwards, whose experiments on animals we have already referred to, applies to man the principles which he deduced from them; and he maintains even, that in "climates in which nudity is not incompatible with health, *the exposure of the whole surface of the body to light will be very favorable to the regular conformation of the body.*" In support of this opinion, he quotes a remarkable passage from Baron Humboldt's "Voyage to the Equatorial Regions of the Globe," in which he is speaking of the people called Chaymas:—"Both men and women," he says, "are very muscular; their forms are fleshy and rounded. It is needless to add, that I have not seen a single individual with a natural deformity. I can say the same of many thousands of Caribs, Muyscas, and Mexican and Peruvian Indians, whom we observed during five years. *Deformities and deviations* are exceedingly rare in certain races of men, especially those who have the skin strongly colored."

If light thus develops in certain races the perfect type of the adult who has grown under its influence, we can hardly avoid the conclusion drawn by Dr. Edwards, "That the want of sufficient light must constitute one of

the external causes which produce those deviations in form in children affected with scrofula; and the more so, as it has been generally observed, that *this disease is most prevalent in poor children living in confined and dark streets.*" Following out the same principle, Dr. Edwards "infers that, in cases where these deformities do not appear incurable, *exposure to the sun in the open air is one of the means tending to restore a good conformation.*" It is true, he adds, "that the light which falls upon our clothes acts only by the heat which it occasions, but the exposed parts receive the peculiar influence of the light. Among these parts, we must certainly regard the eyes as not merely designed to enable us to perceive color, form, and size. Their exquisite sensibility to light must render them peculiarly adapted to *transmit the influence of this agent throughout the system*; and we know that the impression of even a moderate light upon these organs produces in several acute diseases a general exacerbation of symptoms."

The idea of light passing into the system through the eyes, and influencing the other functions of the body, though at first startling, merits, doubtless, the attention of physiologists. The light, and heat, and chemical rays of the sun, combined in every picture on the retina, necessarily pass to the brain through the visual nerves; and, as the luminous rays only are concerned in vision, we can hardly conceive that the chemical and heating rays have no function whatever to perform.

If the light of day, then, freely admitted into our apartments, is essential to the development of the human form, physical and mental; and if the same blessed element lends its aid to art and nature in the cure of disease, it becomes a personal and a national duty to construct our dwelling-houses, our schools, our work-shops, our churches, our villages, and our cities, upon such principles and in such styles of architecture as will allow the life-giving element to have the fullest and the freest ingress, and to chase from every crypt, and cell, and corner, the elements of uncleanness and corruption, which have a vested interest in darkness.

Although we have not, like Howard, visited the prisons and lazarettos of our own and foreign countries, in order to number and describe the dungeons and caverns in which the victims of political power are perishing with-

out light and air, yet we have examined private houses and inns, and even palaces, in which there are many occupied apartments equally devoid of light and ventilation. In some of the principal cities of Europe, and in many of the finest towns of Italy, where external nature smiles in her brightest attire, there are streets and lanes in such close compression, the houses on one side almost touching those of the other, that hundreds of thousands of human beings are neither supplied with light nor with air, and are compelled to carry on their professions in what seems to a stranger almost total darkness. Providence, more beneficent than man, has provided a means of lighting up to a certain extent the workman's home, by the expanding power of the pupil of his eye, in order to admit a greater quantity of rays, and by an increased sensibility of his retina, which renders visible what is feebly illuminated; but the very exercise of such powers is painful and insalutary, and every attempt that is made to see when seeing is an effort, or to read and work with a straining eye and an erring hand, is injurious to the organ of vision, and must sooner or later impair its powers. Thus deprived of the light of day, thousands are obliged to carry on their trades principally by artificial light—by the consumption of tallow, oil, or carburetted hydrogen gas,—thus inhaling from morning till midnight the offensive odors, and breathing the polluted effluvia, which are more or less the products of artificial illumination.

It is in vain to expect that such evils, shortening and rendering miserable the life of man, can be removed by legislation or by arbitrary power. Attempts are gradually being made, in various great cities, to replace their densely congregated streets and dwellings by structures at once ornamental and salutary; and Europe is now admiring that great renovation in a neighboring capital, by which hundreds of streets and thousands of dwellings, once the seat of poverty and crime, are now replaced by architectural combinations the most beautiful, and by hotels and palaces which vie with the finest edifices of Greek or of Roman art.

These great improvements, however, are necessarily local and partial, and centuries must pass away before we can expect those revolutions in our domestic and city architecture under which the masses of the people

will find a cheerful and well-lighted and well-ventilated home. We must, therefore, attack the evil as it exists; and call upon science to give us such a remedy as she can supply. Science does possess such a remedy, which, however, has its limits, but within those limits her principles and methods are unquestionable and efficacious.

Wherever there is a window there is light, which it is intended to admit. In narrow streets and lanes this portion of light comes from the sky, and its value as an illuminating agent depends on its magnitude or area, and on its varying distances from the sun in its daily path. But whether it be large or small, bright or obscure, it is the only source of light which any window can command; and the problem which science pretends to solve is to throw into the dark apartment as much light as possible,—all the light, indeed, excepting that which is necessarily lost in the process employed. Let us suppose that the street is a fathom wide, or two yards, and that the two opposite faces of it are of such a nature that we can see out of a window a considerable portion of the sky two yards wide. Now, the lintel of the window generally projects six or eight inches beyond the outer surface of the panes of glass, so that if the window is at a considerable distance below the luminous portion of the sky, not a single ray from that portion can fall upon the panes of glass. If we suppose the panes of glass to be made flush with the outer wall, rays from every part of the luminous space will fall upon the outer surface of the glass, but so obliquely that it will be nearly all reflected, and the small portion which does pass through the glass will have no illuminating power, as it must fall upon the surface of the stone lintel on which the window now rests. If we now remove our window, and substitute another in which all the panes of glass are roughly ground on their outside, and flush with the outer wall, a mass of light will be introduced into the apartment, reflected from the innumerable faces or facets which the rough grinding of the glass has produced. The whole window will appear as if the sky were beyond it, and from every point of this luminous surface light will radiate into all parts of the room. The effect thus obtained might be greatly increased were we permitted to allow the lower part of the window to be placed beyond the face of the

wall, and thus give the ground surface of the panes such an inclined position as to enable them to catch a larger portion of the sky. The plates or sheets of glass which should be employed in this process, may be so corrugated on one side, as even to throw in light that had suffered total reflection. In aid of this method of distributing light, it would be advisable to have the opposite faces of the street, even to the chimney tops, whitewashed, and kept white with lime; and for the same reason, the ceiling and walls and flooring of the apartment should be as white as possible, and all the furniture of the lightest colors. Having seen such effects produced by imperfect means, we feel as if we had introduced our poor workman or needlewoman from a dungeon into a summer-house. By pushing out the windows, we have increased the quantity of air which they breathe, and we have enabled the housemaid to look into dark corners where there had hitherto nestled all the elements of corruption. To these inmates the sun has risen sooner and set later, and the midnight lamp is no longer lighted when all nature is smiling under the blessed influence of day.

But it is not merely to the poor man's home that these processes are applicable. In all great towns, where neither palaces nor houses can be insulated, there are, in almost every edifice, dark and gloomy cyrpts thirsting for light; and in the city of London, there are warehouses and places of business where the light of day almost never enters. On visiting a friend, whose duty confined him to his desk during the official part of the day, we found him with bleared eyes, struggling against the feeble light which the opposite wall threw into his window. We counselled him to extend a blind of fine white muslin on the outside of his window, and flush with the wall. The experiment was soon made. The light of the sky above was caught by the fibres of the linen and thrown straight upon his writing-table, as if it had been reflected from an equal surface of ground glass. We recollect another case equally illustrative of our process. A party visiting the mausoleum of a Scottish nobleman, wished to see the gilded receptacles of the dead which occupied its interior. There was only one small window through which the light entered, but it did not fall upon the objects that were to be examined. Upon stretching a

muslin handkerchief from its four corners, it threw such a quantity of light into the crypt as to display fully its contents.

But while our process of illuminating dark apartments is a great utilitarian agent, it is also an æsthetical power of some value, enabling the architect to give the full effect of his design to the external façade of his building, without exhibiting to the public eye any of the vulgar arrangements which are required in its interior. The National Picture Gallery of Edinburgh, erected on the Mound, from the beautiful designs of the late W. H. Playfair, is lighted from above; but there are certain small apartments on the west side of the building which cannot be thus lighted, and these being very useful the architect was obliged to light them by little windows in the western façade. These windows are dark gashes in the wall, about two feet high and one foot broad, and being unfortunately placed near the Ionic portico, the principal feature of the building, they entirely destroy the symmetry and beauty of its western façade. Had there been no science in Edinburgh to give counsel on this occasion, the architect should have left his little apartments to the tender mercies of gas or oil; but science had a complete remedy for the evil, and in the hope that the two distinguished individuals who have the charge of the Gallery, Sir John Watson Gordon and Mr. D. O. Hill, will immediately apply it, we now offer to them the process without a fee.

Send a peice of the freestone to the Messrs Chances, of the Smethwick Glass Works, near Birmingham, and order sheets of thick plate-glass the exact size of the present openings, and of such a color, that when one side of the glass is ground the ground side will have precisely the same color as the freestone. When the openings are filled with these plates, having the ground side outwards, the black gashes will disappear, the apartment will be better lighted than before, and the building will assume its true architectural character. The plates of glass thus inserted among the stones, may, when viewed at a short distance, show their true outline; but this could not have happened if, during the building of the wall, one, two, or three of the stones had been left out, and replaced by plates of glass of exactly the same size as the stones. This method of illumination will enable future architects to illuminate the interior of their buildings by in-

visible windows, and thus give to the exterior façade the full æsthetical effect of their design.*

If it is important to obtain a proper illumination of our apartments when the sun is above the horizon, it is doubly important when he has left us altogether to a short-lived twilight, or consigned us to the tender mercies of the moon. In the one case, it is chiefly in ill-constructed dwelling-houses, and large towns and cities, where a dense population, crowded into a limited area, occupy streets and lanes in almost absolute darkness, that science is called upon for her aid; but in the other, we demand from her the best system of artificial illumination, under which we must spend nearly *one-third of our lives*, whether they are passed in the cottage or in the palace, in the open village or in the crowded city.

When we pass from the flickering flame of a wood fire to rods of pine-root charged with turpentine—from the cylinder of tallow to the vase filled with oil—from the wax lights to the flame of gas, and from the latter to the electric light,—we see the rapid stride which art and science have taken in the illumination of our houses and streets. We have obtained a sufficient source of light: we require only to use it safely, economically, and salubriously. The method which we mean not only to recommend, but to press upon the public attention, unites the three qualities which are essential in house illumination; but till our legislators, and architects, and the leaders of public opinion, shall be more alive to the importance of scientific truths, in their practical phase, we have no hope of being honored with their support. True knowledge, however, advances with time. Volgar prejudices are gradually worn down; and in less than a century, whether we have the electric light or not, we shall have our artificial suns shedding their beneficent rays under the guidance of science.

The present method of lighting our houses, by burning the lights within its apartments,

* When ground glass is used for illuminating apartments, the ground side must always be outside; but when it is employed, as it often is, to prevent the persons in a street, or in one room, from looking into another room, the ground side must be placed *inside* of the privileged room. If it were *outside*, the passenger in the street, or the occupant of the one room, could easily look in to the privileged room by rendering the ground glass transparent—by sticking a piece of glass upon it with a little Canada balsam or oil.

is attended with many evils. The intolerable increase of temperature in well-lighted rooms, whether they are occupied by small or large parties—the rapid consumption of the oxygen, which our respiratory system requires to be undiminished—the offensive smell of the unconsumed gas—the stench of the oleaginous products of combustion—the damage done to gilded furniture and picture-frames—the positive injury inflicted on the eyes, by the action of a number of scattered lights upon the retina—and the risks of fire and explosion, are strong objections to the system of internal illumination. About half a century ago, the writer of this article proposed to illuminate our houses by burning the gas externally, or placing it within the walls of the house, or in any other way by which the products of combustion should not vitiate the air of the apartment. The plan was received with a smile. It had not even the honor of being ridiculed. It was too Quixotic to endanger existing interests, or trench upon vested rights. Owing to the extended use of gas, however, its evils became more generally felt; but no attempt was made to alter the existing system till 1839, when a Committee of the House of Commons was appointed to inquire into the best method of lighting the House. Many eminent individuals were examined; and in consequence of the Report of the Committee, the new system was adopted of lighting from without, or in which the air breathed by the members is entirely separated from the air which supplies the burners. A similar change has, we believe, been made in the mode of lighting the House of Lords; but the new system, in its most general aspect, has been admirably carried out in one or more apartments in Buckingham Palace, where the light is distributed from the roof, as if from the sky above, without any of the sources of light being visible. This method, of course, can be adopted only in halls or apartments with an external roof. In all other cases, considerable difficulties must be encountered in houses already built and occupied; but we have no doubt that the ingenuity of the engineer and the architect will overcome them, whether the system is to be accommodated to old buildings, or applied in its most perfect state to houses erected on purpose to receive it. But, however great be these difficulties, it is fortunate, that whether we are to have the

advantage of the electric light, or a purer form of carburetted hydrogen gas, the mode of distributing it will be, generally speaking, the same, and we therefore need not hesitate to introduce the new system on the ground that it may be superseded by another.

Having so recently escaped from the inhumanity of a tax which prohibited the light and air of heaven from entering our dwellings, we trust that the Governments of Europe will freely throw these precious influences into the dark abodes of their over-crowded cities, and that wealthy and philanthropic individuals will set the example of lighting, heating, and ventilating, according to the principles of science. Dr. Arnott has already taught us how to heat our apartments with coal fires without breathing either the gases or the dust which they diffuse. Why should we delay to light them without breathing the noxious gas, and overlaying the organs of respiration with the nameless poisons which are generated in the combustion of the animal and vegetable substances employed in the furnishing of our apartments?

II. Having thus treated of the element of light in its *sanatory relations*, we shall now proceed to consider it in its scientific aspect. We do not propose to write an essay on optics; our sole object is to show to the unscientific reader how much interesting knowledge may be conveyed to him on subjects which he has hitherto shunned, as beyond his depth. Though thirsting for scientific knowledge, he may have neither time nor taste for the perusal even of a popular treatise, and yet be delighted with instructive and memorable facts which can be interpreted by the eye, and with large views of the material world, which sometimes startle reason, and “make even the simple wise.”

How few ever ask themselves the question, What is light? and how few could give a rational answer to it, if put by their children! In a room absolutely dark, there is obviously no light. The moment we light a gas-burner or a candle, light streams from it in all directions, as if it were something material, but diminishing in brightness more rapidly than the distance increases; that is, at *twice* the distance from the burner it is *four* times weaker, at *thrice* the distance *nine* times weaker, and at *four* times the distance *sixteen* times weaker. Philosophers describe this property of light by saying, that it varies as the *square*

of the distance from the burner,—4, 9, and 16, the degrees of brightness, being the squares of the distances, 2, 3, and 4.

If light consists of material particles issuing from the sun, or an artificial flame, we might expect to feel them impinging upon our tender skins, as we sometimes think we feel them on the retina, when the eyes are extremely sensitive to the faintest light. If we open a bottle of musk in a very large apartment, the odoriferous particles immediately stream from it in all directions; but though they are *really material*, they neither affect the skin nor any other nerves but those of smell, and yet their size must be incomparably greater than those of light, which pass through glass, and all transparent bodies whatever.

It was the earliest opinion of philosophers—that of Sir Isaac Newton, Laplace, and others—that light does consist of material particles, emitted from luminous bodies, thrown off from them by some force or power of which we know nothing, and reflected from the surfaces of all ordinary bodies; but a number of very remarkable experiments, made chiefly in our own day, have led many philosophers to believe that light consists in the vibrations, or undulations excited by luminous bodies in a medium called the luminiferous ether, which fills all transparent bodies, and extends to the remotest distances in space. It is supposed analogous to sound, which is propagated by vibrations or undulations in air: and the mode of its propagation may be illustrated by the beautiful circular rings or waves formed on the surface of stagnant water, round the spot where a stone has fallen upon it, or, what is more instructive, by the motion propagated along a field of growing corn. In the undulations on the surface of water, the waves do not advance, as they appear to do, but merely rise and fall, without carrying forward any light bodies that may be floating on their surface. In the field of corn, the motion passes from each stalk to its neighbor, and consequently there is nothing moved from its place,—a motion merely being propagated from stalk to stalk, as it may be from particle to particle of the luminiferous ether.

Whether we adopt the emission theory of Newton, or the undulatory theory of Hooke and Huygens, we must be startled with the fact, almost incredible, that in the one case,

the material particles are launched through space from all luminous bodies in all possible directions, without their impinging on one another; and that in the other, the waves or undulations of the elastic ether are circling in all directions from a thousand centres, without being defaced or obliterated. If a number of intense odors were to be let loose from the same centre, they would soon mutually interfere, and the fine waves on a peaceful lake if propagated from some adjacent centres, would soon disturb each other and disappear. It is otherwise, however, with the radiant locomotives of light. Whether they be material particles, or the vibrations of an elastic medium, they will ever carry, without the risk of collision, the great messages of the universe.

No less wonderful is the manner in which light performs its cosmical functions, the inconceivable rapidity with which it carries its dispatches, and the lengths of time and the depths of space of which it allows us to take cognizance. It is quite certain that light moves at the rate of 192,500 miles in a second of time. It travels from the sun to the earth in seven minutes and a-half; so that it would move round the earth's surface, a distance of about 25,000 miles, in the eighth part of a second, a flight which the swiftest bird could not perform in less than *three weeks*. In applying this measure of the velocity of light, obtained from direct observations on the satellites of Jupiter, to the greatest distances in the universe, we get the following results:—

Light moves from Earth to	
Moon in	1 1-4 second.
Sun in	7 1-2 minutes.
Jupiter in *	52 minutes
Uranus in	2 hours.
Neptune in	4 1-4 hours.
Nearest Fixed Star,	45 years.
Star of 8th Magnitude,	180 years.
Star of 12th Magnitude,	4,000 years
The remotest telescopic stars,	
probably	6,000 years.

Now it is obvious, that if any visible event were to happen on any of these planets or stars, it could not be seen to us upon the earth till after the time mentioned in the Table. If the nearest fixed star were to be destroyed, it would continue to be seen by us for 45 years after it had ceased to exist, the last rays which issued from it requiring that time to reach the earth. In like manner, if

* When at its greatest distance.

our earth had been created 6,000 years ago, it would just now only have become visible at the most distant star, a point of space to which light takes 6,000 years to travel.

These facts may be of some use to such of our readers as are familiar with certain recent speculations, which have as much science as to amuse us, and as much fancy as to mislead us. The ingenious author of a little work, entitled, "The Stars and the Earth," asserts that "pictures of every occurrence propagate themselves into the distant ether upon the wings of the ray of light, and though they become weaker and smaller, yet at immeasurable distances they still have color and form; and as every thing possessing color and form is visible, so must these pictures also be said to be visible, however impossible it may be for the human eye to perceive them *with the hitherto discovered optical instruments.*"

"The universe, therefore, encloses the *picture* of the past like an indestructible and incorruptible record, containing the purest and the clearest truth." The grave and pious Principal Hitchcock,* taking up these views, has carried them far beyond the limits of science and common sense. The anonymous writer wants only new optical instruments; but the divine tells us, "that there may be in the universe created beings with powers of vision acute enough to take in all these pictures of our world's history, as they make the circuit of the numberless suns and planets that lie embosomed in boundless space. Suppose such a being at this moment upon a star of the twelfth magnitude, with an eye turned towards the earth. He might see the deluge of Noah just sweeping over the surface. Advancing to a nearer star, he would see the Patriarch Abraham going out, not knowing whither he went. Coming still nearer, the vision of the crucified redeemer would meet his gaze. Coming nearer still, he might alight upon worlds where all the revolutions and convulsions of modern times would fall upon his eye. Indeed, there are worlds enough, and at the right distances, in the vast Empyrean, to show him every event in human history."

The anonymous speculator tells us that there are *pictures* of every occurrence enclosed by the universe on indestructible tablets; but he does not tell us what lens sepa-

rates one picture from the infinite number of them which must exist, nor what is the tablet on which it is depicted, so that granting him his instruments, he himself could not tell us when and how to apply them, or what they would exhibit. Let Dr. Hitchcock, too, have his "created beings" with the highest powers of vision, and place them on a star which the rays proceeding from Noah's "deluge, sweeping over the earth," may just have reached. He forgets that the earth is revolving about his axis and moving round the sun,—that clouds and darkness are periodically covering its visible hemisphere,—that "every event in human history" does not occur in open day, and could not be seen by a contemporary observer placed any where above the earth's surface; and therefore, that all his speculations have not only no foundation in science, but no meaning in sense. The only truth which they so elaborately overlay is, that there are stars in the universe so remote from the earth, or from each other, that the light of the one cannot reach the other till after the lapse of a great number of years,—a simple corollary from the fact, that light moves with the velocity of 192,500 miles in a second. Not content, however, with torturing this little truth, he calls in the aid of *electric reactions, odyllic reaction, chemical reaction, organic reaction, mental reaction, geological reaction*,—all words without meaning, in order to prove, 1st, that our minutest actions, and perhaps our thoughts, from day to day, are known throughout the universe! and, 2dly that in a future state, the power of reading the past history of the world, and of individuals, may be possessed by man!

Next in popular interest to the almost inconceivable velocity of light, is the number of influences or elements of which a white beam of the sun's light is composed. It had always been supposed that the sun's light was perfectly white, heating, as well as illuminating, every substance on which it fell; and that the colors of the rainbow, and of all natural bodies, were changes produced somehow or other upon white light, or were caused by the mixture of *white* light with different degrees or kinds of *blackness*. Sir Isaac Newton found, however, that *white* light consists of *red, orange, yellow, green, blue, indigo, and violet* light in certain proportions, and that the *white* light which we see is a *mixture of all these seven colors*. If by any

* *The Religion of Geology and its Connected Sciences*. Boston, 1851. Lect. XII. The Telegraphic System of the Universe.

means we remove the *red* color, then the mixture of all the other colors will not be *white*, but have a *blue* tint; and if by any means we can take away the *blue* rays, the mixture of all the rest will be *reddish* or *yellow*. In like manner, if we remove or extinguish out of a beam of white light any one of the seven colors, or any part of one of the colors, the light will be no longer *white*, but *red* or *reddish*, *yellow* or *yellowish*, or *blue* or *bluish*, according to the color or the quantity of it that has been removed.

Now, all the leaves of plants and flowers, and all natural bodies whatever, have the power of absorbing every sort of light which falls upon them, except light of their own color, which they reflect or radiate. When the sun's white light falls upon the red petal of the scarlet geranium, the petal absorbs nearly all the other six colors which exist in the white light, and reflects only the *red*. In like manner, when the sun's light falls upon the *blue* petal of the *tradesantia virginica*, the petal absorbs nearly all the other rays, and reflects only the *blue*. That the *red* petal of the geranium, and the *blue* petal of the *tradesantia*, are not in themselves *red* and *blue*, is evident from this, that if we throw upon them any other light, they will each appear *black*; that is, they derive their *red* and *blue* light solely from their reflecting the *red* and *blue* rays, which form part of the white light of the sun. Now these statements are perfectly true, if the *red* color of the petal in the one plant, and the *blue* color of the petal in the other, were the pure *red* and *blue* colors of the sun's light; but they never are so exactly, so that, when other colors than *red* fall upon the *red* petal, it is not *black*, but of a dark color; and when other colors than *blue* fall upon the *blue* petal, it is not *black*, but of a dark color,—a result which Sir Isaac Newton thus expresses: "The colors of all natural bodies have no other origin than this, that they are variously qualified to reflect one sort of light in greater plenty than another."

These observations on the origin of colors, and of the composition of white light, enable us to initiate the general reader into the subject of the *harmony of colors*, a species of knowledge easily acquired, and of essential importance in the art of painting, and in all the decorative arts. In studying the works of the ancient masters, it is obvious that they

were not acquainted with the true principles of harmonious coloring; and, in modern times, we know of no artist but Mulready who has evinced in his works any thing like a thorough knowledge of the subject. Without descending into particulars, we state that *red* and *green* are harmonic colors, and *blue* and *yellow*. If the *red* verges upon *orange*, the *green* must be *blueish-green*, and if the *blue* verges upon *green*, its harmonic *yellow* must verge upon *orange*. The reason why these colors harmonize with each other is, that *red* and *green*, and *blue* and *yellow*, make white light. For the same reason, any number of colors in a painting would be harmonious, provided they are in such proportions as to make white light. This of course is true only as a general principle; for if the painting represented a brilliant sunset, there must be a predominance of *red*. In order to explain why harmonic colors should, when combined, make white light, we must refer to the curious physiological fact, that when the eye is strongly impressed with any one color, it sees at the same time its harmonic color, or the color required to make white light. If you look steadily upon a *red* wafer on a white ground for a few seconds, and turn the eye aside, you will see a *green* wafer. If you are in a room where the light of the sun passes through a bright *red* curtain, any hole or opening in the curtain will appear *green*. The reason of this is, that the eye is rendered less sensible to red light by looking at the curtain, and therefore, seeing less of red which is in the white light of the hole or opening, the whole appears *green*. If a picture is painted with two leading colors which are not harmonic—suppose *bright red* and *bright blue*—then it is obvious that after the eye has been fixed on the *red* part, it will see *green*, and this *green* will appear as a spot on the *blue* part of the picture; whereas, if the two colors had been *red* and *green*, the *green* seen after looking at the *red* would not appear as a spot on the real *green* of the picture. When two colors are harmonic, and placed in juxtaposition, they brighten one another, and the forms to which the colors are applied are more distinctly seen. If the hour and minute hands of a public clock, for example, are highly gilt, and the hours gilt on a *blue* ground, the time will be more distinctly seen than if any other colors had been employed.

Another department of optics which claims the notice of the general reader is that of vision,—the way in which we see and are seen. When we are told by some wise people, that having two eyes we really see things double, though we have learned to consider them only single, and that we actually see objects upside down, though we have learned from experience that they stand upright, it is high time that we should know something on the subject. In the shutter of a dark room make a little hole, and place a small lens in it. Behind the lens hold a sheet of paper, and you will see the landscape inverted, and, if there are men in it, you will see on the paper their heads downwards and their feet upwards. This is the case in the human eye; every picture painted on the retina being inverted when we look at it behind, in an eye prepared for the purpose. But if in the dark room we place an eye behind the head of an inverted figure, and look through the hole or lens, we shall see the head uppermost, and if we place the eye behind the foot of the figure, and look through the hole or lens, we shall see the feet undermost, and conclude that the figure is erect. Now the eye is so constructed that every point of an image painted upon the retina is seen in a direction perpendicular to the point of the retina on which it falls, and hence it is absolutely necessary to have an inverted picture of objects on the retina in order to see them erect. With regard to double vision, it is quite true that when we see an object single we see two pictures of the same object, one with each eye; but every one point of the one picture is seen in the same place and direction as every point of the other, and therefore the two pictures necessarily appear single throughout. If we had not the power by the muscles of our eyes to place the one image exactly upon the other, the two pictures would be visible. If we had an hundred eyes in place of two, and the power of directing their axes to one point, we should still see only one object.

Of all the triumphs which science has achieved in any of its departments, the most magical, and the one, too, least understood by unscientific persons, are the powers of the microscope and telescope. The power to enlarge a thousand times and render visible the minutest parts of objects whose very existence the eye cannot discover; and the power of magnifying to any extent, and bring within

the scrutiny of the astronomer, planets and stars, and other celestial objects, which the sharpest eye cannot descry in the heavens. It is not easy to explain the method of doing this without diagrams; but a sufficiently intelligible explanation may be obtained from well-known properties of lenses. If we place any object before a lens, an image of the object is formed behind it. If the object is near the lens, and small, the image will be distant and large, the sizes of each being proportional to their distance from the lens. If a small object, invisible to the eye, or imperfectly visible, is in front of a lens, and placed near it, its image will be enlarged so as to make it visible; and by looking at this enlarged image with another lens we may magnify it much more, rendering what was invisible visible, and exhibiting structures unseen by the eye.

In the case of the heavenly bodies, or of distant objects on our own globe, we cannot bring them near a lens so as to produce an enlarged image of them to be afterwards magnified. We use, however, lenses of a great focal length (that is, which form their image at a great distance behind them); and these images of distant objects are much larger than the small images of them formed by the eye. These enlarged images are again magnified by viewing them with a small lens. But as light is always lost in magnifying an object, it is necessary, as in the finest achromatic telescopes of glass, to have the lenses as large as they can be got, 18 or 24 inches in diameter, to admit much light; and in the reflecting telescope, such as those of Lord Rosse, specula have been used three and six feet in diameter, to collect light enough to enable high magnifying powers to be applied to the images formed in the focus of the speculum.

There is one other property of light, discovered in our own day, of which it behoves every person to have some knowledge, however slight. It is the *polarization* of light,—a remarkable property, which is often talked of by persons who do not know even the meaning of the name. If we reflect a ray of *ordinary* light, coming either from the sun or a candle, from the surface of any transparent body, solid or fluid, at an angle between 53° and 68° — 53° for *water*, 56° for *glass*, and 68° for *diamond*,—the ray of light so reflected is *polarized light*. Receive the polarized ray—the ray polarized by glass, for

example,—upon another plate of the same glass at an angle of 56° , and turn the plate round 360° , a complete circle, keeping the ray always incident at the same angle of 56° ; you will observe *four* positions, distant 90° , at which the light disappears, the glass being unable to reflect it, and other *four* positions, distant 45° from these, and 90° from each other, where the light reflected is the brightest; the light reflected in all other positions increasing from the dark to the bright position. The *polarized light*, therefore, possessing these properties, must have suffered some remarkable change by being reflected at an angle of 56° from the glass; and consequently it differs entirely from *ordinary light*, which is *equally* reflected from the glass during the rotation of the glass round the ray.

Let us now fix these two plates of glass so that ordinary light falling upon the first plate is polarized, and place the second plate in one of the four positions where the polarized ray will not be reflected, and the flame from which it proceeds appears as a black spot when we look into the second plate.* In this simple little apparatus, which a child may make, we call the first plate of glass the *polarizer*, because it polarizes the ordinary light, and the second plate the *analyzer*, for reasons which we shall presently see. If we now take a thin slice of *gypsum*, or sulphate of lime (which is as transparent as glass), about the 100th of an inch thick, and holding it between the polarizer and analyzer, we look into the analyzer so as to see the black spot through the slice of gypsum, we shall be surprised to find, upon turning the slice round, that there are four positions of it, distant 90° , where the gypsum will have the most brilliant color—suppose red—restoring the light of the vanished flame, and that in other four positions, distant 45° from these, where all color disappears, and the black spot returns. If we now fix the film of gypsum in the position where it gives the brightest *red*, and make the analyzer revolve round the polarized ray or black spot, we shall find two positions, 180° distant, where the *red* will be seen upon the black spot. At points 45° distant from these the *red* will disappear, and the black spot return. At other four points, distant

* It will be found convenient to take the ordinary light from the sky, so that when we look into the second plate, we shall a black spot on the reflected picture of the sky.

45° from them, the gypsum will be of a bright *green* color, the colors getting paler and paler as the analyzer comes to the position which gives the black spot. Hence, we see that when the slice of gypsum revolves, only one color varying with the thickness of the slice is seen, and when the analyzer alone revolves, *two* colors, *red* and *green*, or *blue* and *yellow*, are seen; and these colors are always the *pure harmonic colors*. These two colors make pure white or colorless light, and they are analyzed by the analyzer which, in one position, reflects to the eye one color, viz., the *red*, but is not able, in the same position, to reflect the other color, namely, the *green*. In another position, however, it reflects the *green* and not the *red*, so that it has analyzed, when mixed, the two colors, *red* and *green*, which compose the colorless light transmitted by the slice of gypsum.

If, instead of the slice of gypsum, we place in the apparatus plates of *Iceland spar*, *quartz*, and *beryl*, etc., and make the light pass along the axis of the crystal, we shall observe the most beautiful phenomena of circular and highly-colored rings with a black cross; and if we use biaxial crystals, such as *arragonite* or *nitre*, we shall see the most brilliantly colored double system of rings along the principal axis of the crystal.

Our limited space will not permit us to give any further account of the wonderful properties of polarized light, and of the almost magical structures which it develops.

When we look with the most powerful microscopes at many transparent bodies, animal, vegetable, and mineral, we see no structure whatever; but when we make polarized light pass through them, it emerges with certain changes in its state, produced by the structure of the body, and these changes are rendered visible by the analyzer in a variety of tints, either faint or brilliant.

III. We come now to consider light in its *aesthetic relations*, or as an auxiliary to art.

In an article on Photography, published in an early number of this Journal,* we have given a very full account of the history of this wonderful art, and of the various processes on paper and on metal which were at that time known. So rapid, however, has been the progress of discovery, and so valuable the improvements that have been made in the art, that new materials and processes have

* See this Journal, vol. vii., p. 465, August 1847.

were introduced, and the original method of taking the negative photographs on paper has almost entirely disappeared.

In our history of the early attempts to take pictures by the rays of the sun, we omitted to notice a very interesting and successful experiment made by our distinguished countryman, the late Dr. Thomas Young. In 1802, when Mr. Wedgewood was "making profiles by the agency of light," and Sir Humphry Davy was "copying on prepared paper the images of small objects produced by means of the solar microscope," Dr. Young was taking photographs, upon paper dipped in a solution of nitrate of silver, of the colored rings observed by Newton; and his experiments clearly prove that the agent was not the luminous rays in the sun's light, but the invisible or chemical rays beyond the violet. The paper in which this experiment is described is entitled, "Experiments and Calculations relative to Physical Optics,"* and was read to the Royal Society of London in November 1803 as the Bakerian Lecture. The passage we shall give in its entire state, from the sixth section of the paper, and is entitled, *Experiment on the dark rays of Ritter* :—

"The existence of solar rays accompanying light more refrangible than the violet rays, and cognizable by their chemical effect, was first ascertained by Mr. Ritter; but Dr. Wollaston made the same experiment a very short time afterwards, without having been informed of what had been done on the Continent. These rays appear to extend beyond the violet rays of the prismatic spectrum, through a space nearly equal to that which is occupied by the violet. In order to complete the comparison of their properties with those of visible light, I was desirous of examining the effect of their reflection from a thin plate of air, capable of producing the well-known rings of colors. For this purpose I formed an image of the rings, by means of the solar microscope, with the apparatus which I had described in the journals of the Royal Institution, and I threw this image on paper dipped in a solution of nitrate of silver, placed at a distance of about nine inches from the microscope. In the course of an hour, portions of three dark rings were very distinctly visible, much smaller than the brightest rings of the colored image, and coinciding very nearly in their dimensions with the rings of violet light that appeared upon the interposition of violet glass. I thought the dark rings

were a little smaller than the violet rings, but the difference was not sufficiently great to be accurately ascertained; it might be as much as 1-30th or 1-40th of the diameters, but not greater. It is the less surprising that the difference should be so small, as the dimensions of the colored rings do not by any means vary at the violet end of the spectrum so rapidly as at the red end. For performing this experiment with very great accuracy, a heliostate would be necessary, since the motion of the sun causes a slight change in the place of the image; and leather impregnated with muriate of silver would indicate the effect with greater delicacy. The experiment, however, in its present state, is sufficient to complete the analogy of the invisible with the visible rays, and to show that they are equally liable to the general law (of interference), which is the principal subject of this paper."

The beautiful process of the *Calotype* or *Talbotype*, viewed as a whole, was the undoubted invention of Mr. Henry Fox Talbot. As a new art which gave employment to thousands, he brought it to a high degree of perfection. He expended large sums of money in obtaining for the public the full benefit of his invention, and towards the termination of his patent he liberally surrendered to photographic amateurs and others all the rights which he possessed, with the one exception of taking portraits for sale, which he conveyed to others, and which he was bound by law and in honor to secure to them.* As Mr. Talbot had derived no pecuniary benefit from his patent, he had intended to apply for an extension of it to the Privy Council: but the art had been so universally practiced, that numerous parties were interested in opposing the application, and individuals were found who laid claim to the use of some of the chemical materials used in the calotype, and who combined with others to reduce the patent, and thus prevent the possibility of its renewal. Although we are confident that a jury of philosophers in any part of the world would have given a verdict in favor of Mr. Talbot's patent, taken as a whole, and so long unchallenged, yet we regret to say that an English judge and jury were found to deprive him of his right and transfer it to the public. The patrons of science and art stood aloof in the contest, and none of our scientific constitutions, and no intelligent members of the Government, came forward to claim from the

* This paper is reprinted in Dr. Young's *Lectures on Natural Philosophy*, vol. ii., p. 639-648.

* Hunt's *Manual*, ect., p. 329.

the State a national reward to Mr. Talbot. In France, the Government, by the advice of M. Arago, acted a very different part to Niepce and Daguerre, the inventors of the *Daguerreotype*. The invention was given as a present from the State to France, and even to Europe, and Niepce and Daguerre received between them an annual pension of L.633!

The great defect in Mr. Talbot's process, not in his patent, was, that *paper* was the substance upon which his calotype pictures were to be taken. He early saw the difficulty of obtaining this material of a suitable quality for photographic purposes, and he made many attempts to remedy the evil; but although several papermakers exerted themselves to the utmost, and succeeded, to a certain extent, in manufacturing a highly improved article, yet the size employed, and various chemical substances used in the process, rendered it impossible to procure paper of that fineness and uniformity of texture which the advanced state of the art required. When the artist had bestowed the greatest pains in taking a negative picture, and had taken it sometimes two or three times, he often found his own labor lost, and the expectations of his sitters disappointed.

Under these circumstances, the idea occurred to M. Niepce St. Victor, Commandant of the Louvre, to whom photography owes so many obligations, to reject paper altogether for negatives, and to use a film of albumen spread upon glass. To do this, he takes 5 ounces of the whites of fresh eggs, mixed with 100 grains of iodide of potassium, 20 grains bromide of potassium, and 10 grains of common salt. This mixture is beaten up with a fork, and after resting all night it is ready in the morning for use; that is, it is ready to be spread into an uniform film upon glass, and employed instead of paper for taking negative photographs.

The great advantage of the albumen process is, that the film is perfectly smooth and homogeneous, and may be obtained of a very large size. Its defect, however, is its want of sensibility,* so that it can be employed only for statues and landscapes. It seems to have been very little used in England, but has been brought to perfection by Messrs Ross and Thomson in Edinburgh, who, to use

the words of Mr. Hunt, "have been eminently successful operators with it,—many of their pictures, which are of a large size, exhibited more artistic effect than is obtained by any other photographers. Some of the positives produced are very fine. At the last meeting of the British Association in Edinburgh, these gentlemen exhibited some positive images on glass plates; these were backed up with plaster of Paris for the purpose of exalting the effects, which were exceedingly delicate and beautiful." We have now before us six of these magnificent photographs, 15 1-2 inches by 15 1-2, representing Edinburgh from the Calton Hill, interior of Holyrood Chapel, Melrose Abbey in two aspects, the Golden Gate of St. Andrew's Cathedral, and the north door-way of Dunfermline Cathedral, Benan, and Benvenau; and we have no hesitation in saying, that they surpass every thing that has been done in this country.

We have obtained from Messrs. Ross and Thomson the following account of the process by which these remarkable views were obtained:—

"The whites of several eggs, having 18 drops of saturated iodide of potassium added for each egg, are beat up into a large mass of froth, and allowed to stand for 10 or twelve hours, till the whole falls into a liquid. It is then poured plentifully upon the surface of a clean plate of glass, which, by means of a bent wire and a piece of worsted thread, is made to revolve at a moderate rate before a clear fire, till by the influence of the centrifugal force, a very perfect film of albumen is spread over the glass. When the albumen begins to crack at the edges, the plate is withdrawn from the fire, covered with minute cracks over the whole of its surface. It is now dipped in nitrate of silver, 70 grains to the ounce of water, having mixed with it a 20th part in quantity of strong acetic acid. When taken out, it is washed with water once or twice, and before it is dry the picture may be taken upon it. If the object is a light one, four minutes will be sufficient to impress the image, but any thing red or green will take longer. The picture is developed by pouring a saturated solution of gallic acid on the albumen, and spreading it with a piece of cotton wool. The picture will then appear slowly and gradually of a reddish color, and when brought out as far as it will come, a little of the nitrate of silver solution mixed with gallic acid is spread over it with a piece of clean cotton wool. The picture will now assume a

* "It requires an exposure of at least sixty times longer than the same preparation on paper."
—Hunt's *Manual*, p. 88.

* *Manual of Photography*, 1857. Edit. v., p. 84.

darker and more vivid appearance; and when fixed with a solution of hyposulphate of soda, may be washed with clean water. No varnish is required, and hundreds or thousands of copies may be taken from it. At a meeting of the Scottish Photographic Society in 1857, a dense negative of a statue was taken by gas-light in *fifteen* minutes. This was the highest state of sensitiveness that Messrs Ross and Thomson ever saw. It was produced by an excess of iodide of potassium in the albumen but they found that plates thus prepared are apt to crack and chip off the glass, when exposed to the sun in printing."

Owing to the great length of time required to take a photograph in albumen, various attempts have been made to render it more sensitive, or to obtain a more sensitive material equally uniform and manageable. Mr. Hunt had, in 1844, recommended the use of the fluorides; and M. B. Everard has lately employed the fluoride of potassium, along with the iodide of potassium, as a means of obtaining instantaneous images on albumen. Mr. Hunt has found that the image appears immediately on exposure in the camera, and anticipates great advantages from the use of the fluorides.*

For the same reason, M. Niepce St. Victor has recently published a process, in which, in place of albumen, he employs 70 grains of starch rubbed down in 70 grains of water, and then mixed with 3 or 4 oz. more of water. After 54 grains of iodide of potassium are added, the whole is boiled till the starch is properly dissolved. It is then laid upon a plate of glass, and is said to give tablets of great sensibility. The serum of milk, and gelatine and other substances have also been proposed, and used, to obtain a surface more transparent than paper, and more sensitive than albumen; but most of them have been abandoned, at least for portraits, since the introduction of *collodion* by Archer in 1850.

The discovery and use of collodion is doubtless the greatest improvement that has been made in photography. Collodion is a limpid fluid of the color of sherry, and is made by dissolving gun-cotton in ether containing a little alcohol. Gun-cotton is made by mixing 70 grains of fine selected cotton with water, nitre, and sulphuric acid, in the proportions of 3, 4, and 5 ounces. After the cotton has been washed in this bath by stirring it with

* Grape sugar and honey have been successfully employed in greatly increasing the sensibility of albumen plates.

two glass rods, it is taken out, well washed with water to remove every trace of acid, and hung up to dry. Fifteen grains of gun-cotton, thus prepared, is placed in a mixture of 9 fluid ounces of rectified sulphuric ether, with 1 ounce of alcohol 60° overproof. The cotton will be almost wholly dissolved with the exception of some fibres, which will fall to the bottom. The clear solution, or collodion, when poured off, is ready to be iodized, by adding to it a certain quantity, to be determined by experiment, of an alcoholic solution of the iodide of silver and the iodide of potassium. A glass plate, well cleaned from grease, is coated with a thin film of collodion, obtained by pouring a small quantity on the plate, and running it off by one corner into the bottle. This film, solidified by the evaporation of the ether, is now excited by a solution of 30 grains of nitrate of silver in 1 ounce of water. It is placed in the camera, and the image developed and fixed by processes, which we cannot of course here find room to detail.

Collodion may be prepared from paper, flax, the pith of the elder, and many other vegetable substances. In whatever way it is made, the name of *pyroxyline* is given to it. *Lignine*, or the true substance of wood, is convertible into a substance analogous to true gun-cotton. *Lignine*, combined with strong nitric acid, forms a substance called *xyloidide*. The preparations of collodion by Mr. R. W. Thomas are in much esteem, and are sold under the name of *Xylo-iodide of Silver*.

Although M. Biot, in 1840, considered it as an illusion to expect photographs having the color of the objects which they represent, yet a certain advance, and one of some importance, has been made to this result. In a former article we referred to the attempts of M. Claudet and Sir John Herschel to copy the colors of nature. Mr. Hunt "produced colored images, not merely impressions of the rays of the spectrum, but copies in the camera of colored objects." But the most important results have been obtained by M. Edmund Becquerel, and M. Niepce St. Victor of Paris.

In November, 1848, M. Edmund Becquerel exhibited to the Academy of Sciences "a photochromatic image of the solar spectrum, and colored photographs obtained in the camera obscura." These photographs were on daguerreotype plates; and there can be no doubt that all the colors of the spectrum,

and those of natural objects were obtained by his process. Unfortunately, however, no method of fixing them could be found, and the colors disappeared very quickly when exposed to light, though they could be preserved for a long time in the dark.

M. Niepce St. Victor has pursued this subject with more success than his predecessors. Mr. Hunt has examined pictures of his on metallic plates, "in which every color of the original was most faithfully represented," but they eventually faded into one uniform reddish tint; and M. Niepce St. Victor tells us that he has made an hundred attempts to fix these *helio-chromes*, as he calls them, without the slightest success.

Important as these researches are, M. Niepce de St. Victor has just published two "Memoirs" on a new action of light, which will excite much interest in the scientific world. Having exposed for a quarter of an hour to the sun's direct rays an engraving, which had been kept several days in the dark, he applied the engraving to a sheet of sensitive paper, and after twenty-four hours' contact, he obtained a negative picture of the engraving! If the engraving, taken from a dark place, where it has been for several days, be applied to the sheet of sensitive paper, without exposure to the direct rays of the sun, no negative picture is produced. Wood, ivory, goldbeater's skin, parchment, and even the living skin, struck by light, will give a negative picture, but metals and enamels will not. If a film of mica, glass, or rock crystal is placed between the engraving and the sensitive paper, no negative picture will be got; but if the engraving is covered with a stratum of collodion or gelatine, the picture will be obtained. If the distance between the engraving and the sensitive paper is only three millimetres, or 1-8th of an inch, a picture will be produced; and if the lines of the engraving are strong, a distance of a centimetre will not prevent it. If we take an opaque tube, shut up at one end and lined with white paper, and expose the open end for an hour to the direct rays of the sun, and if at the end of twenty-four hours we apply the open end of the tube to a piece of sensitive paper, we shall obtain a negative image of the opening. If the tube be hermetically sealed after exposure to the sun's rays, it will preserve for a long time the power of acting upon sensitive paper. M. Niepce St. Victor

placed a sheet of white paper that had been in the dark in the camera, where it continued to receive for three hours an image brilliantly illuminated by the sun. When taken out and applied to a sheet of sensitive paper, it reproduced very visibly, in twenty-four hours, the original image in the camera obscura!

In his second Memoir our author exhibits this "persistent activity," or "storing up" of light, as he calls it, in another interesting experiment. He places a glass or paper negative upon a sheet of paper that has been several days in the dark, and after a sufficient exposure to the sun's rays, he takes out the paper in the dark, and develops the picture by a solution of nitrate of silver, and fixes it by merely washing it in pure water. In order to obtain a picture more quickly and more vigorously developed, he impregnates the sheet of paper, till it becomes of a pale, straw yellow color, with an aqueous solution of *nitrate of uranium*, "which admits in a higher degree than the paper the luminous action of storing up with the persistent luminous activity." The picture, when taken, as before, is fixed by simple immersion in pure water till the salt of uranium is completely removed.* Thus fixed, the pictures resist the energetic action of a boiling solution of cyanuret of potash; and we may therefore hope that they will be indestructible by time. This great discovery of M. Niepce St. Victor will be received with surprise by the scientific world, who regard light and all its chemical influences as the effect of simple motion. When light has been stored up for days, it is difficult to understand how it can afterwards begin to vibrate and perform all its former functions.

Although M. Niepce St. Victor's experiment on the permanence of the nitrate of uranium photographs is very interesting, yet time only can solve the problem of their absolute indestructibility; and we must continue to practise the art with all the fears and misgivings of the past. It is fortunate, however, that several processes have been invented by which photographs can be rendered as permanent as engravings, and multiplied to any extent. The best of these processes is the photo-galvanographic one of Mr. Paul Pretsch,

* The paper is immersed *five* minutes in a solution of 20 grains of nitrate of uranium in 100 grains of water; or it may be floated on the solution, so as to penetrate through only half the thickness of the paper.

who, after securing his right by patent, established a company at Islington, and has published in a series of numbers magnificent specimens of the art. Solutions of glue in solutions of nitrate of silver, iodide of potassium, and bichromate of potash, are mixed according to a rule, and spread like albumen over the glass plate. A photograph or engraving is placed on the prepared plate, and a negative taken in sun-light. The glass is then placed in water, with a little alcohol, and the darkened parts are rendered soluble, while the other parts are insoluble, so that in a few minutes we have a picture represented not only by light and shadow, but by the unequal thickness of the gelatine on the glass. When the plate is dry, soft gutta-percha is pressed upon the picture till it hardens. The gutta-percha has consequently an image the reverse of the first. After rubbing it over with bronze powder or black lead, it is placed in a solution of sulphate of copper, and an electrotype plate taken from it, in the usual way, with a voltaic battery. From this plate others can be readily taken, and, as in ordinary copperplate printing, thousands of copies can be thrown off. "By this process," says Mr. Hunt,* "pictures, in which the most delicate details are very faithfully preserved, and the nice gradations in light and shadow maintained in all their beauty, are now printed from the electrotype plate, obtained from the photograph. The process of photo-galvanography is evidently destined to take a very high position as a means of preserving the beauties of nature and art."†

Since the publication of our former article, photography has had many new and valuable applications, not only to the fine but to the useful arts.

In miniature painting it has created a new profession. Mr. Duppa, a distinguished artist, after making his photograph transparent, paints with oil colors on the back of the photograph, so that he never can take away the original likeness. Mr. Dickinson, on the contrary, and others, paint upon the photograph itself; and, at a trifling risk of affecting the likeness, they have the power of correcting defects, both in form and expression, which exist in almost every sun-picture.

* *Manual of Photography*, pp. 269, 270.

† We regret to learn that the establishment at Islington is broken up, but we trust that Mr. Pretsch will resume his labors with wealthy and active coadjutors.

To the landscape and historical painter, photography has proved an invaluable assistant. Messrs. Ross and Thomson published some time ago the most beautiful photographs of plants for foregrounds, taken while growing at the foot of rocks and trees. Of these, the ferns, the dock leaves, the foxglove, and the nettle are beyond all praise; * but charming as these are, they are surpassed by two on a larger scale, which have recently appeared, under the names of "the Quiet Corner" and "the Dykeside." These photographs, 15½ by 15½ inches, full of the poetry of vegetable life, teem with wild plants of the most picturesque and lovely forms, and rich in the variety and luxuriance of leaf and stem. Though devoid of fragrance and of color, they allure us to the cooling fountain which waters them. They tempt us to nestle in the little rocky hollow which they adorn, and to weep with human sympathies amid creations that are fated but to bloom and die.

The most important application of photography has certainly been to the stereoscope, not only in reference to art, but to the great purposes of education, and to the illustration of works on every branch of knowledge. The surface of the moon has been drawn with singular beauty. The eclipses of the sun and moon have been delineated, and various other astronomical phenomena, which the observer could not otherwise have recorded. But perhaps one of the most curious applications of the art has been to microscopic portraits, as executed with such skill by Mr. Dancer of Manchester. Some of these are so small that ten thousand could be included in a square inch, and yet, when magnified, the pictures have all the smoothness and vigor of ordinary photographs. The illustration of books by photography is, at present, a doubtful application of the art. The indestructible photo-galvanographs of Mr. Pretsch render such a risk unnecessary. The circulation of photographs in periodicals, such as *The Photographic Art Journal*, cannot, we think, succeed. In the four numbers of that work, which ought to have contained eight first-rate photographs, there are only four worth possessing, including "Fruit by Lance," from a

* The French have executed fine photographs of plants after they have been placed in a vase or woven into garlands. English artists, too, have done the same with plants in a hot-house. See Brewster's *Treatise on the Stereoscope*, pp. 172-18.

highly-colored oil painting which photography cannot reproduce in light and shadow. The scene of Gray's Elegy in our copy, and likely in many, is entirely spoilt; and in our copy Miss Jewsbury's portrait is a feeble and ineffective photograph, though tolerably good in other copies which we have seen. What beauty is there in the alto-relievo of Justin? and who cares for a view of "A Farm-yard in Hythe," with a lump of blurred foliage in the corner. But even if these photographs were good, and represented interesting historical subjects, and great men, and grand scenes in nature, they never could float the mawkish letterpress of science and literature with which they are interspersed.

The *Stereoscopic Magazine* has yet to show its character, by giving only interesting subjects, and *rejecting every picture, as an imposition on the public, which is not taken at the true binocular angle.* If it does not, a rival, in which "the pictures are true representations of the human form and of external nature," would instantly supplant it. To give stereoscopic pictures of the human figure, whether living or in marble, in which the

head is in advance of the neck, and the female dress draws away from the bust is a degradation of art; and to delineate a picturesque valley drawn out in startling perspective to amuse a clown, or groups of Egyptian ruins running out into a long street, is the freak of a Charlatan, and not the work of an artist.

Upon looking into the past history of photography, it would be hazardous to predict its future. But though we dare not venture to shorten the arm of science, or limit its grasp, there are certain steps in advance which we may reasonably anticipate. Optical instruments are yet required to represent on a plane the human face, without deforming its lines and magnifying its imperfections. We still require a more sensitive tablet to perpetuate the tender expressions of domestic life, and to fix the bolder lines of intellect and of passion which are displayed in the forum and in the senate. But, above all, we long to preserve the life-tints of those we love—to give to the ringlet its auburn, and to the eye its azure,—to perpetuate the maiden blush, and to rescue from oblivion even the hectic flush from which we are so soon to part.

HEATING BY GAS—SANDING THE AIR.—

One of the new buildings erecting by Mrs. Dudley in Hawk street, says the Albany Knickerbocker, is not only to be lighted, but heated, with gas. The plan adopted is the one got out by Calvin Pepper, Esq., of this city. The iron work will be done up at the Eagle Furnace. Mr. Pepper gets up his heat by passing gas through sand. If the gas be directed into the body of the sand it will instantly diffuse itself through the entire mass, and, raising to the surface, may, with perfect safety, be instantly set on fire with a match, the flame covering the whole surface of the sand with a pure flame without smoke, no matter how large the extent of the flame, and with perfect and complete combustion. The heat is almost instantaneously diffused through the entire mass of sand, heating it equally throughout, and requiring but one minute of time to heat the sand to such intense temperature that it will retain its heat for hours after the gas is shut off and the light extinguished. There can be no doubt that the gas required to light a room will also be sufficient to heat it. Mr. Pepper claims that two cents' worth of gas will make a sufficient quantity of sand red hot to keep a room warm in winter 8 hours. If this be so, it will be seen that our fuel expenses can be reduced to about 50 cents a week.

THE death of the Marquis (Olivier de St. George) de Verac, at the age of ninety, in his old château du Tremblay, cannot pass without

a word on our parts. When a boy he filled the post of private secretary to the Baron de Breteuil, then resident at Soleure. Baron and boy alone possessed the secret (out of Paris) of the intended royal journey to Varennes. The gallant lad more than once put his life in jeopardy by secret visits to the capital, and even after the arrest of the unhappy sovereigns, he contrived to put himself in communication with the royal prisoners. M. de Verac retained in his possession several letters and fragments of letters written by Louis the Sixteenth and Marie-Antoinette, and the hoped-for publication of these would tend, we are assured, to raise in the general esteem the king and queen to whom misfortune gave such terrible dignity.—*Athenæum*.

EXCAVATION NEAR ROME.—Sir Charles Eastlake writes to the London *Builder* an account of some important excavations which have been recently made in the neighborhood of Rome. Several interesting fragments have been thrown up, a portion of the old Roman road (Via Latina) uncovered, and a most interesting tomb, consisting of several chambers, highly ornamented, containing sarcophagi, &c., has been discovered. The remains of an early Christian basilica have also been disclosed, and the general impression seems to be that what has hitherto been discovered only forms a small portion of a "paga," or village, of which the most part still remains to be disinterred.

CHAPTER THE NINTH.

AFTER a pause I ventured to ask what became of Madame de Créquy, Clément's mother.

"She never made any inquiry about him again," said my lady. "She must have known that he was dead; though how, we never could tell. Medicott remembered afterwards that it was about, if not on—the very Monday, June the nineteenth, that her son was executed that Madame de Créquy left off her rouge, and took to her bed, as one bereaved and hopeless. It certainly was about that time; and Medicott—who was deeply impressed by that dream of Madame de Créquy's (the relation of which I told you had had such an effect on my lord), in which she had seen the figure of *Virginie*—as the only light object amid much surrounding darkness as of night, smiling and beckoning Clément on—on—till at length the bright phantom stopped, motionless, and Madame de Créquy's eyes began to penetrate the murky darkness, and to see closing around her the gloomy dripping walls which she had once seen and never forgotten, the walls of the vault of the chapel of the De Créquys in Saint Germain l'Auxerrois, and there the two last of the De Créquys laid them down among their forefathers, and Madame de Créquy had wakened to the sound of the great door, which led to the open air, being locked upon her—I say Medicott, who was predisposed by this dream to look out for the supernatural, always declared that Madame de Créquy was made conscious in some mysterious way of her son's death on the very day and hour when it occurred, and that after that she had no more anxiety, was only conscious of a kind of stupifying despair."

"And what become of her, my lady?" asked I, repeating my question.

"What could become of her?" replied Lady Ludlow. "She never could be induced to rise again, though she lived more than a year after her son's departure. She kept her bed; her room darkened, her face turned towards the wall, whenever any one besides Medicott was in the room. She hardly ever spoke, and would have died of starvation but for Medicott's tender care, in putting a morsel to her lips every now and then, feeding her, in fact, just as an old bird feeds her

young ones. In the height of summer my lord and I left London. We would fain have taken her with us into Scotland, but the doctor (we had the old doctor from Leicester Square) forbade her removal; and this time he gave such good reasons against it that I acquiesced. Medicott and a maid were left with her. Every care was taken of her. She survived till our return. Indeed I thought she was in much the same state as I had left her in when I came back to London. But Medicott spoke of her as much weaker; and one morning on awakening they told me she was dead. I sent for Medicott, who was in sad distress, she had become so fond of her charge. She said that about two o'clock she had been awakened by unusual restlessness on Madame de Créquy's part; that she had gone to her bedside, and found the poor lady feebly but perpetually moving her wasted arm up and down—and saying to herself in a wailing voice: 'I did not bless him when he left me—I did not bless him when he left me!' Medicott gave her a spoonful or two of jelly, and sate by her, stroking her hand, and soothing her till she seemed to fall asleep. But in the morning she was dead."

"It is a sad story, your ladyship," said I, after a while.

"Yes it is. People seldom arrive at my age without having watched the beginning, middle, and end of many lives and many fortunes. We do not talk about them, perhaps; for they are often so sacred to us as having touched into the very quick of our own hearts, as it were, or into those of others who are dead and gone, and veiled over from human sight, that we cannot tell the tale as if it was a mere story. But young people should remember that we had had this solemn experience of life, on which to base our opinions and form our judgments, so that they are not mere untried theories. I am not alluding to Mr. Horner just now, for he is nearly as old as I am—within ten years, I daresay—but I am thinking of Mr. Gray, with his endless plans for some new thing—schools, education, Sabbaths, and what not. Now he has not seen what all this leads to."

"It is a pity he has not heard your ladyship tell the story of poor Monsieur de Créquy."

"Not at all a pity, my dear. A young man like him, who, both by position and age

must have had his experience confined to a very narrow circle, ought not to set up his opinion against mine; he ought not to require reasons from me, nor to need such explanation of my arguments (if I condescend to argue), as going into relation of the circumstances on which my arguments are based in my own mind, would be."

"But, my lady, it might convince him," I said, with perhaps injudicious perseverance.

"And why should he be convinced?" she asked, with gentle inquiry in her tone. "He has only to acquiesce. Though he is appointed by Mr. Croxton, I am the lady of the manor, as he must know. But it is with Mr. Horner that I must have to do about this unfortunate lad Gregson. I am afraid there will be no method of making him forget his unlucky knowledge. His poor brains will be intoxicated with the sense of his powers, without any counterbalancing principles to guide him. Poor fellow! I am quite afraid it will end in his being hanged!"

The next day Mr. Horner came to apologize and explain. He was evidently—as I could tell from his voice as he spoke to my lady in the next room—extremely annoyed at her ladyship's discovery of the education he had been giving to this boy. My lady spoke with great authority, and with reasonable grounds of complaint. Mr. Horner was well acquainted with her thoughts on the subject, and had acted in defiance of her wishes. He acknowledged as much, and should on no account have done it in any other instance without her leave.

"Which I could never have granted you," said my lady.

But this boy had extraordinary capabilities; would, in fact, have taught himself much that was bad, if he had not been rescued, and another direction given to his powers. And in all Mr. Horner had done, he had had her ladyship's service in view. The business was getting almost beyond his power, so many letters and so much account-keeping was required by the complicated state.

Lady Ludlow felt what was coming—a reference to the mortgage for the benefit of my lord's Scottish estates, which she was perfectly aware Mr. Horner considered as having been a most unwise proceeding—and she hastened to inquire:

"All this may be very true, Mr. Horner, and I am sure I should be the last person to

wish you to over-work or distress yourself; but of that we will talk another time. What I am now anxious to remedy is, if possible, the state of this poor little Gregson's mind. Would not hard work in the fields be a wholesome and excellent way of enabling him to forget?"

"I was in hopes, my lady, that you would have permitted me to bring him up to act as a kind of clerk," said Mr. Horner, jerking out his project abruptly.

"A what?" asked my lady, in infinite surprise.

"A kind of—of assistant in the way of copying letters and doing up accounts. He is already an excellent penman and very quick at figures."

"Mr. Horner," said my lady, with dignity, "the son of a poacher and vagabond ought never to have been able to copy letters relating to the Hanbury estates; and, at any rate, he shall not. I wonder how it is that, knowing the use he has made of his power of reading a letter, you should venture to propose such an employment for him as would require his being in your confidence, and you the trusted agent of this family. Why, every secret (and every ancient and honorable family has its secrets, as you know, Mr. Horner!) would be learnt off by heart, and repeated to the first comer!"

"I should have hoped to have trained him, my lady, to understand the rules of discretion."

"Trained! Train a barn-door fowl to be a pheasant, Mr. Horner! That would be the easier task. But you did right to speak of discretion rather than honor. Discretion looks to the consequences of actions—honor looks to the action itself, and is an instinct rather than a virtue. After all, it is possible you might have trained him to be discreet."

Mr. Horner was silent. My lady was softened by his not replying, and began, as she always did in such cases, to fear lest she had been too harsh. I could tell that by her voice and by her next speech as well as if I had seen her face.

"But I am sorry you are feeling the pressure of the affairs; I am quite aware that I have entailed much additional trouble upon you by some of my measures; I must try and provide you with some suitable assistance. Copying letters and doing up accounts, I think you said?"

Mr. Horner had certainly had a distant idea of turning the little boy, in process of time into a clerk; but he had rather urged this possibility of future usefulness beyond what he had at first intended, in speaking of it to my lady as a palliation of his offence, and he certainly was very much inclined to retract his statement that the letter-writing, or any other business, had increased, or that he was in the slightest want of help of any kind, when my lady, after a pause of consideration, suddenly said:

"I have it. Miss Galindo will, I am sure, be glad to assist you. I will speak to her myself. The payment we should make to a clerk will be of real service to her!"

I could hardly help echoing Mr. Horner's tone of surprise as he said:

"Miss Galindo!"

For you must be told who Miss Galindo was; at least, told as much as I know. Miss Galindo had lived in the village for many years, keeping house on the smallest possible means, yet always managing to maintain a servant. And this servant was invariably chosen because she had some infirmity that made her undesirable to every one else. I believe Miss Galindo had had lame and blind and hump-backed maids. She had even taken in a girl hopelessly gone in consumption at one time as a servant because, if not, she would have had to go to the workhouse, and not have had enough to eat. Of course the poor creature could not perform a single duty usually required of a servant, and Miss Galindo herself was both servant and nurse.

Her present maid was scarcely four feet high, and bore a terrible character for ill-temper. Nobody but Miss Galindo would have kept her; but as it was, mistress and servant squabbled perpetually, and were, at heart, the best of friends. For it was one of Miss Galindo's peculiarities to do all manner of kind and self-denying actions, and to say all manner of provoking things. Lame, blind, deformed, and dwarf, all came in for scoldings without number! it was only the consumptive girl that never had heard a sharp word. I don't think any of her servants liked her the worse for her peppery temper, and passionate odd ways, for they knew her real and beautiful kindness of heart; and, besides, she had so great a turn for humor, that very often her speeches amused as much or more than they irritated; and on the other side, a piece of

witty impudence from her servant would occasionally tickle her so much and so suddenly, that she would burst out laughing in the middle of her passion.

But the talk about Miss Galindo's choice and management of her servants was confined to village gossip, and had never reached my Lady Ludlow's ears, though doubtless Mr. Horner was well acquainted with it. What my lady knew of her amounted to this. It was the custom in those days for the wealthy ladies of the county to set on foot a repository, as it was called, in the assize-town. The ostensible manager of this repository was generally a decayed gentlewoman, a clergyman's widow, or so forth. She was, however, controlled by a committee of ladies; and paid by them in proportion to the amount of goods she sold; and these goods were the small manufactures of ladies of little or no fortune, whose names, if they chose it, were only signified by initials.

Poor water-color drawings, in indigo and Indian ink; screens, ornamented with moss and dried leaves; paintings on velvet, and such faintly ornamental works were displayed on one side of the shop. It was always reckoned a mark of characteristic gentility in the repository, to have only common heavy framed sash-windows, which admitted very little light, so I never was quite certain of the merit of these Works of Art, as they were entitled. But, on the other side, where the Useful Work placard was put up, there was a great variety of articles, of whose unusual excellence every one might judge. Such fine sewing, and stitching, and button-holing! Such bundles of soft delicate knitted stockings and socks; and, above all, in Lady Ludlow's eyes, such hanks of the finest spun flaxen thread!

And the most delicate dainty work of all was done by Miss Galindo, as Lady Ludlow very well knew. Yet, for all their fine sewing, it sometimes happened that Miss Galindo's patterns were of an old-fashioned kind; and the dozen night-caps, maybe, on the materials for which she had expended bona fide money, and on the making-up, no little time and eyesight, would lie for months in a yellow neglected heap; and at such times it was said Miss Galindo was more amusing than usual, more full of dry drollery and humor; just as at the times when an order came in to X (the initial she had chosen) for a stock of well paying things, she sat and stormed at her servant

as she stitched away. She herself explained her practice in this way :

"When every thing goes wrong, one would give up breathing if one could not lighten one's heart by a joke. But when I've to sit still from morning till night, I must have something to stir my blood, or I should go off in an apoplexy, so I set to, and quarrel with Sally."

Such were Miss Galindo's means and manner of living in her own house. Out of doors, and in the village she was not popular, although she would have been sorely missed had she left the place. But she asked too many home questions (not to say impertinent) respecting the domestic economies, (and even the very poor like to spend their bit of money their own way), and would open cupboards to find out hidden extravagancies, and question closely respecting the weekly amount of butter, till one day she met with what would have been a rebuff to any other person, but which she rather enjoyed than otherwise.

She was going into the cottage, and, in the doorway met the good woman chasing out a duck, and apparently unconscious of her visitor.

"Get out, Miss Galindo!" she cried, addressing the duck. "Get out! O, I ask your pardon," she continued, as if seeing the lady for the first time. "It's only that weary duck that will come in. Get out, Miss Gal——" (to the duck).

"And so you call it after me, do you?" inquired her visitor.

"O, yes, ma'am my master would have it so, for he said, sure enough the unlucky bird was always poking herself where she was not wanted."

"Ha, ha! very good! And so your master is a wit, is he? Well! tell him to come up and speak to me to-night about my parlor chimney, for there is no one like him for chimney doctoring."

And the master went up, and was so won over by Miss Galindo's merry ways, and sharp insight into the mysteries of his various kinds of business (he was a mason, chimney-sweeper, and rat-catcher), that he came home and abused his wife the next time she called the duck the name by which he himself had christened her.

But odd as Miss Galindo was in general, she could be as well-bred a lady as any one

when she chose. And choose she always did, when my Lady Ludlow was by. Indeed I don't know the man, woman, or child, that did not instinctively turn out its best side to her ladyship. So she had no notion of the qualities which I am sure made Mr. Horner think that Miss Galindo would be most unmanageable as a clerk, and heartily wish that the idea had never come into my lady's head. But there it was; and he had annoyed her ladyship already more than he liked to-day, so he could not directly contradict her, but only urge difficulties which he hoped might prove insuperable. But every one of them Lady Ludlow knocked down. Letters to copy? Doubtless. Miss Galindo could come up to the hall; she should have a room to herself; she wrote a beautiful hand; and writing would save her eyesight. "Capability with regard to accounts?" My lady would answer for that, too; and for more than Mr. Horner seemed to think it necessary to inquire about. Miss Galindo was by birth and breeding a lady of the strictest honor, and would if possible, forget the substance of any letters that pass through her hands; at any rate, no one would ever hear of them again from her. "Remuneration?" Oh! as for that, Lady Ludlow would herself take care that it was managed in the delicate manner possible. She would send to invite Miss Galindo to tea at the Hall that very afternoon, if Mr. Horner would only give her ladyship the slightest idea of the average length of time that my lady was to request Miss Galindo to sacrifice to her daily. "Three hours! Very well." Mr. Horner looked very grave as he passed the windows of the room where I lay. I don't think he liked the idea of Miss Galindo as a clerk.

Lady Ludlow's invitations were like royal commands. Indeed the village was too quiet to allow the inhabitants to have many evening engagements of any kind. Now and then Mr. and Mrs. Horner gave a tea and supper to the principal tenants and their wives, to which the clergyman was invited, and Miss Galindo, Mrs. Medlicott, and one or two other spinsters and widows. The glory of the supper-table on these occasions was invariably furnished by her ladyship! it was a cold roasted peacock, with his tail stuck out as if in life. Mrs. Medlicott would take up the whole morning arranging the feathers in the proper semicircle, and was always pleased with the wonder and admiration it

excited. It was considered a due reward and fitting compliment to her exertions that Mr. Horner always took her in to supper, and placed her opposite to the magnificent dish, at which she sweetly smiled all the time they were at table. But since Mrs. Horner had had the paralytic stroke these parties had been given up; and Miss Galindo wrote a note to Lady Ludlow in reply to her invitation, saying that she was entirely disengaged, and would have great pleasure in doing herself the honor of waiting upon her ladyship.

Whoever visited my lady took their meals with her, sitting on the dais, in the presence of all my former companions. So I did not see Miss Galindo until some time after tea; as the young gentlewomen had had to bring her their sewing and spinning, to hear the remarks of so competent a judge. At length her ladyship brought her visitor into the room where I lay,—it was one of my bad days, I remember,—in order to have her little bit of private conversation. Miss Galindo was dressed in her best gown, I am sure, but I had never seen any thing like it except in a picture, it was so old-fashioned. She wore a white muslin apron, delicately embroidered, and put on a little crookedly, in order, as she told us, even Lady Ludlow, before the evening was over, to conceal a spot whence the color had been discharged by a lemon-stain. This crookedness had an odd effect, especially when I saw that it was intentional; indeed, she was so anxious about her apron's right adjustment in the wrong place, that she told us straight out why she wore it so, and asked her ladyship if the spot was properly hidden, at the same time lifting up her apron and showing her how large it was.

"When my father was alive, I always took his right arm, so, and used to remove any spotted or discolored breadths to the left side if it was a walking dress. That's the convenience of a gentleman. But widows and spinsters must do what they can. Ah, my dear! (to me), when you are reckoning up the blessings in your lot,—though you may think it a hard one in some respects,—don't forget how little your stockings want darning, as you are obliged to lie down so much! I would rather knit two pairs of stockings than darn one, any day."

"Have you been doing any of your beautiful knitting lately?" asked my lady, who had

now arranged Miss Galindo in the pleasantest chair, and taken her own little wicker-work one, and, having her work in her hands, was ready to try and open the subject.

"No, and alas! your ladyship. It is partly the hot weather's fault, for people seem to forget that winter must come; and partly, I suppose, that every one is stocked who has the money to pay four and sixpence a pair for stockings."

"Then may I ask if you have any time in your active days at liberty?" said my lady, drawing a little nearer to her proposal, which I fancy she found it a little awkward to make.

"Why the village keeps me busy, your ladyship, when I have neither knitting nor sewing to do. You know I took X for my letter at the repository, because it stands for Xantippe, who was a great scold in old times, as I have learnt. But I'm sure I don't know how the world would get on without scolding, your ladyship. It would go to sleep, and the sun would stand still."

"I don't think I could bear to scold, Miss Galindo," said her ladyship, smiling.

"No! because your ladyship has people to do it for you. Begging your pardon, my lady, it seems to me the generality of people may be divided into saints, scolds, and sinners. Now your ladyship is a saint, because you have a sweet and holy nature, in the first place; and have people to do your anger and vexation for you, in the second place. And Jonathan Walker is a sinner, because he is sent to prison. But here am I, half way, having but a poor kind of disposition at best, and yet hating sin, and all that leads to it, such as wasting and extravagance, and gossiping,—and yet all this lies right under my nose in the village, and I am not saint enough to be vexed at it; and so I scold. And though I had rather be a saint, yet I think I do good in my way."

"No doubt you do, dear Miss Galindo," said Lady Ludlow. "But I am sorry to hear that there is so much that is bad going on in the village,—very sorry."

"O, your ladyship! then I am sorry I brought it out. It was only by way of saying, that when I have no particular work to do at home, I take a turn abroad, and set my neighbors to rights, just by way of steering clear of Satan."

" 'For Satan finds some mischief still
For idle hands to do,'

you know, my lady."

There was no leading into the subject by delicate degrees, for Miss Galindo was evidently so fond of talking, that, if asked a question, she made her answer so long, that before she came to an end of it, she had wandered far away from the original starting point. So Lady Ludlow plunged at once into what she had to say.

"Miss Galindo, I have a great favor to ask of you."

"My lady, I wish I could tell you what a pleasure it is to hear you say so," replied Miss Galindo, almost with tears in her eyes; so glad were we all to do any thing for her ladyship, which could be called a free service and not merely a duty.

"It is this. Mr. Horner tells me that the business-letters, relating to the estate, are multiplying so much that he finds it impossible to copy them all himself, and I therefore require the services of some confidential and discreet person to copy these letters, and occasionally to go through certain accounts. Now, there is a very pleasant little sitting-room very near to Mr. Horner's office (you know Mr. Horner's office? on the other side of the stone hall?) and if I could prevail upon you to come here to breakfast and afterwards sit there for three hours every morning, Mr. Horner should bring or send you the papers—"

Lady Ludlow stopped. Miss Galindo's countenance had fallen. There was some great obstacle in her mind to her wish for obliging Lady Ludlow.

"What would Sally do?" she asked at length. Lady Ludlow had not a notion who Sally was. Nor if she had had a notion, would she have had any conception of the perplexities that poured into Miss Galindo's mind, at the idea of leaving her rough forgetful dwarf without the perpetual monitorship of her mistress. Lady Ludlow, accustomed to a household where every thing went on noiselessly, perfectly and by clock-work, conducted by a number of highly-paid well-chosen and accomplished servants, had not a conception of the nature of the rough material from which her servants came. Besides, in her establishment, so that the result was good, no one inquired if the small economies had been observed in the production. Where-

as every penny—every half-penny—was of consequence to Miss Galindo; and visions of squandered drops of milk and wasted crusts of bread filled her mind with dismay. But she swallowed all her apprehensions down out of her regard for Lady Ludlow, and desire to be of service to her. No one knows how great a trial it was to her when she thought of Sally, unchecked and unscolded for three hours every morning. But all she said was,—

"Sally go to the Dence. I beg your pardon, my lady, if I was talking to myself; it's a habit I have got into of keeping my tongue in practice, and I am not quite aware when I do it. Three hours every morning! I shall be only too proud to do what I can for your ladyship; and I hope Mr. Horner will not be too impatient with me at first. You know, perhaps, that I was nearly being an authoress once, and that seems as if I was destined to 'employ my time in writing.'"

"No, indeed; we must return to the subject of the clerkship, afterwards, if you please. An authoress, Miss Galindo! You surprise me!"

"But, indeed, I was. All was quite ready. Doctor Burney used to teach me music; not that I ever could learn, but it was a fancy of my poor father's. And his daughter wrote a book, and they said she was but a very young lady, and nothing but a music-master's daughter; so why should not I try?"

"Well?"

"Well! I got paper and half a hundred good pens, a bottle of ink, all ready—"

"And then—"

"O, it ended in my having nothing to say, when I sat down to write. But sometimes, when I get hold of a book, I wonder why I let such a poor reason stop me. It does not others."

"But I think it was very well it did, Miss Galindo," said her ladyship. "I am extremely against women's usurping men's employments, as they are very apt to do. But perhaps, after all, the notion of writing a book improved your hand. It is one of the most legible I ever saw."

"I despise z's without tails," said Miss Galindo, with a good deal of gratified pride at my lady's praise.

Presently, my lady took her to look at a curious old cabinet, which Lord Ludlow had picked up at the Hague; and while they

were out of the room on this errand, I suppose the question of remuneration was settled, for I heard no more of it.

When they came back, they were talking of Mr. Gray. Miss Galindo was unsparing in her expressions of opinion about him: going much farther than my lady in her language, at least.

"A little blushing man like him, who can't say bo to a goose without hesitating and coloring, to come to this village—which is as good a village as ever lived—and cry us down for a set of sinners, as if we had all committed murder and that other thing!—I have no patience with them, my lady. And then, how is he to help us to heaven, by teaching us our a b, ab, b a, ba? And yet, by all accounts, that's to save poor children's souls. O, I knew your ladyship would agree with me. I am sure my mother was as good a creature as ever breathed the blessed air; and if she's not gone to heaven, I don't want to go there; and she could not spell a letter decently. And does Mr. Gray think God took note of that?"

"I was sure you would agree with me, Miss Galindo," said my lady. "You and I can remember how this talk about education—*Rosseau*, and his writings—stirred up the French people to their *Reign of Terror*, and all those bloody scenes."

"I'm afraid that *Rosseau* and Mr. Gray are birds of a feather," replied Miss Galindo, shaking her head. "And yet there is some good in the young man, too. He sate up all night with Billy Davis, when his wife was fairly worn out with nursing him."

"Did he, indeed!" said my lady, her face lighting up, as it always did when she heard of any kind or generous action, no matter who performed it. "What a pity he is bitten with these new revolutionary ideas, and is so much for disturbing the established order of society!"

When Miss Galindo went, she left so favorable an impression of her visit on my lady, that she said to me, with a pleased smile:

"I think I have provided Mr. Horner with a far better clerk than he would have made of that lad *Gregon* in twenty years. And I will send the lad to my lord's grieve, in Scotland, that he may be kept out of harm's way."

But something happened to the lad before this purpose could be accomplished.

CHAPTER THE TENTH.

THE next morning Miss Galindo made her appearance, and, by some mistake, unusual in my lady's well-trained servants, was shown into the room where I was trying to walk; for a certain amount of exercise was prescribed for me, painful although the exertion had become.

She brought a little basket along with her; and while the footman was gone to inquire my lady's wishes (for, indeed, I don't think that Lady Ludlow expected Miss Galindo so soon to assume her clerkship; nor, indeed, had Mr. Horner any work of any kind ready for his new assistant to do), she launched out into conversation with me.

"It was a sudden summons, my dear! However, as I have often said to myself, ever since an occasion long ago, if Lady Ludlow ever honors me by asking for my right hand, I'll cut it off, and wrap the stump up so tidily she shall never find out it bleeds. But if I had had a little more time I could have mended my pens better. You see I have had to sit up pretty late to get these sleeves made"—and she took out of her basket a pair of brown-holland over-sleeves, very much such as a grocer's apprentice wears—"and I had only time to make seven or eight pens out of some quills *Farmer Thomson* gave me last autumn. As for ink, I'm thankful to say that's always ready; an ounce of steel filings, an ounce of nut-gall, and a pint of water (tea, if you're extravagant, which, thank Heaven! I'm not), put all in a bottle, and hang it up behind the house door, so that the whole gets a good shaking every time you slam it to, and, even if you are in a passion and bang it, as Sally and I often do, it is all the better for it, and there's my ink ready for use; ready to write my lady's will with, if need be."

"O, Miss Galindo!" said I, "don't talk so; my lady's will! and she not dead yet."

"And if she were, what would be the use of talking of making her will? Now, if you were Sally, I should say, 'Answer me that, you goose!' But, as you're a relation of my lady's, I must be civil, and only say, 'I can't think how you can talk so like a fool!' To be sure, poor thing, you're lame!"

I do not know how long she would have gone on; but my lady came in, and I, released from my duty of entertaining Miss Galindo, made my limping way into the next room. To tell the truth, I was rather afraid

of Miss Galindo's tongue, for I never knew what she would say next.

Presently my lady came in. She began to look in the bureau for something, and as she looked she spoke to me.

"I think Mr. Horner must have made some mistake when he said he had so much work that he almost required a clerk, for this morning he cannot find any thing for Miss Galindo to do, and there she is, sitting with her pen behind her ear, waiting for something to write. I am come to find her my mother's letters, for I should like to have a fair copy made of them. O, here they are! don't trouble yourself, my dear child."

When my lady returned, she sate down and began to talk of Mr. Gray.

"Miss Galindo says she saw him going to hold a prayer-meeting in a cottage. Now, that really makes me unhappy, it is so like what Mr. Wesley used to do in my younger days; and since then we have had rebellion in the American colonies and the French revolution. You may depend upon it, my dear, making religion and education common—vulgarizing them, as it were—is a bad thing for a nation. A man who hears prayers read in the cottage where he has just supped on bread and bacon forgets the respect due to a church; he begins to think that one place is as good as another, and, by-and-by, that one person is as good as another; and after that I always find that people begin to talk of their rights, instead of thinking of their duties. I wish Mr. Gray had been more tractable, and had left well alone. What do you think I heard this morning? Why, that the Home Hill estate, which niches into the Hanbury property, was bought by a Baptist baker from Birmingham!"

"A Baptist baker!" I exclaimed. I had never seen a Dissenter to my knowledge; but, having always heard them spoken of with horror, I looked upon them almost as if they were rhinoceroses. I wanted to see a live Dissenter, I believe, and yet I wished it were over. I was almost surprised when I heard that any of them were engaged in such peaceful occupations as baking.

"Yes! so Mr. Horner tells me. A Mr. Lambe, I believe. But, at any rate, he is a Baptist, and has been in trade. What with his schismatism and Mr. Gray's methodism, I am afraid all the primitive character of this place will vanish."

From what I could hear, Mr. Gray seemed to be taking his own way; at any rate, more than he had done when he first came to the village, when his natural timidity had made him defer to my lady, and seek her consent and sanction before embarking in any new plan. But newness was a quality Lady Ludlow especially disliked. Even in the fashions of dress and furniture she clung to the old, to the modes which had prevailed when she was young; and, though she had a deep personal regard to Queen Charlotte (to whom, as I have perhaps already said, she had been maid-of-honor), yet there was a tinge of Jacobitism about her, such as made her extremely dislike to hear Prince Charles Edward called the Young Pretender, as many loyal people did in those days, and made her fond of telling of the thorn-tree in my lord's park in Scotland, which had been planted by bonny Queen Mary herself, and before which every guest in the Castle of Monkshaven were expected to stand bare-headed, out of respect to the memory and misfortunes of the royal planter.

We might play at cards, if we so chose, on a Sunday; at least I suppose we might, for my lady and Mr. Mountford used to do so often when I first went. But we must neither play cards nor read nor sew on the fifth of November and on the thirtieth of January, but must go to church, and meditate all the rest of the day—and very hard work meditating was. I would far rather have scoured a room. That was the reason, I suppose, why a passive life was seen to be better discipline for me than an active one.

But I am wandering away from my lady, and her dislike to all innovation. Now, it seemed to me, as far as I heard, that Mr. Gray was full of nothing but new things, and that what he first did was to attack all our established institutions, both in the village and the parish and also in the nation. To be sure, I heard of his ways of going on principally from Miss Galindo, who was apt to speak more strongly than accurately.

"There he goes," she said, "clucking up the children just like an old hen, and trying to teach them about their salvation and their souls; and I don't know what—things that it is just blasphemy to speak about out of church. And he potters old people about reading their Bibles. I am sure I don't want to speak disrespectfully about the Holy Scrip-

tures, but I found old Job Horton busy reading his Bible yesterday. Says I, 'What are you reading, and where did you get it, and who gave it you?' So he made answer 'That he was reading Susannah and the Elders, for that he had read Bel and the Dragon till he could pretty near say it off by heart, and they were two as pretty stories as ever he had read, and that it was a caution to him what bad old chaps there were in the world.' Now, as Job is bed-ridden, I don't think he is likely to meet with the Elders, and I say that I think repeating his Creed, the Commandments and the Lord's Prayer, and, maybe, throwing in a verse of the Psalms, if he wanted a bit of a change, would have done him far more good than his pretty stories, as he called them. And what's the next thing our young parson does? Why, he tries to make us all feel pitiful for the black slaves, and leaves little pictures of negroes about, with the question printed below, Am I not a man and a brother? just as if I was to be hail-fellow-well-met with every negro footman. They do say he takes no sugar in his tea, because he thinks he sees spots of blood in it. Now I call that superstition."

The next day it was a still worse story.

"Well, my dear! and how are you? My lady sent me in to sit a bit with you, while Mr. Horner looks out some papers for me to copy. Between ourselves, Mr. Steward Horner does not like having me for a clerk. It is all very well, he does not; for, if he were decently civil to me, I might want a chaperone, you know, now poor Mrs. Horner is dead." This was one of Miss Galindo's grim jokes. "As it is, I try to make him forget I'm a woman. I do every thing as ship-shape as a masculine man-clerk. I see he can't find a fault—writing good, spelling correct, sums all right. And then he squints up at me with the tail of his eye, and looks glummer than ever, just because I'm a woman—as if I could help that. I have gone good lengths to set his mind at ease. I have stuck my pen behind my ear, I have made him a bow instead of a cursey, I have whistled—not a tune, I can't pipe up that—nay, if you won't tell my lady, I don't mind telling you that I have said Confound it! and Zounds! I can't get any farther. For all that, Mr. Horner won't forget I am a lady, and so I am not half the use I might be, and if it were not to please my Lady Ludlow,

Mr. Horner and his books might go hang (see how natural that came out!). And there is an order for a dozen nightcaps for a bride, and I am so afraid I shan't have time to do them. Worst of all, there's Mr. Gray taking advantage of my absence to seduce Sally!"

"To seduce Sally! Mr. Gray!"

"Pooh, pooh, child! There's many a kind of seduction. Mr. Gray is seducing Sally to want to go to church. There has he been twice at my house, while I have been away in the mornings, talking to Sally about the state of her soul and that sort of thing. But when I found the meat all roasted to a cinder, I said, 'Come, Sally, let's have no more praying when beef is down at the fire. Pray at six o'clock in the morning and nine at night, and I won't hinder you.' So she sauced me, and said something about Martha and Mary, implying that, because she had let the beef get so overdone that I declare I could hardly find a bit fit for Nancy Pole's sick grandchild, she had chosen the better part. I was very much put about, I own, and perhaps you'll be shocked at what I said—indeed, I don't know if it was right myself—but I told her I had a soul as well as she, and if it was to be saved by my sitting still and thinking about salvation and never doing my duty, I thought I had as good a right as she had to be Mary, and save my soul. So that afternoon I sat quite still, and it was really a comfort, for I am often too busy, I know, to pray as I ought. There is first one person wanting me, and then another, and the house and the food and the neighbors to see after. So, when tea-time comes, there enters my maid with her hump on her back, and her soul to be saved. 'Please, ma'am, did you order the pound of butter?'—'No, Sally,' I said, shaking my head, 'this morning I did not go round by Hale's farm, and this afternoon I have been employed in spiritual things.'

"Now our Sally likes tea and bread and butter above every thing, and dry bread was not to her taste.

"'I'm thankful,' said the impudent hussy, 'that you've taken a turn towards godliness. It will be my prayers, I trust, that's given it you.'

"I was determined not to give her an opening towards the carnal subject of butter, so she lingered still, longing to ask leave to run

for it. But I gave her none, and munched my dry bread myself, thinking what a famous cake I could make for little Ben Pole with the bit of butter we were saving; and when Sally had had her butterless tea, and was in none of the best of tempers because Martha had not bethought herself of the butter, I just quietly said:

"Now, Sally, to-morrow we'll try to hash that beef well, and to remember the butter, and to work out our salvation all at the same time, for I don't see why it can't all be done, as God has set us to do it all." But I heard her at it again about Mary and Martha, and I have no doubt that Mr. Gray will teach her to consider me a lost sheep."

I had heard so many little speeches about Mr. Gray from one person or another, all speaking against him, as a mischief-maker, a setter-up of new doctrines, and of a fanciful standard of life (and you may be sure that, where Lady Ludlow led, Mrs. Medlicott and Adams were certain to follow, each in their different ways showing the influence my lady had over them), that I believe I had grown to consider him as a very instrument of evil, and to expect to perceive in his face marks of his presumption, and arrogance, and impertinent interference. It was now many weeks since I had seen him, and when he was one morning shown into the blue drawing-room (into which I had been removed for a change), I was quite surprised to see how innocent and awkward a young man he appeared, confused even more than I was at our unexpected tête-à-tête. He looked thinner, his eyes more eager, his expression more anxious, and his color came and went more than it had done when I had seen him last. I tried to make a little conversation, as I was, to my own surprise, more at my ease than he was; but his thoughts were, evidently too much pre-occupied for him to do more than answer me with monosyllables.

Presently my lady came in. Mr. Gray twitched and colored more than ever; but plunged into the middle of his subject at once.

"My lady, I cannot answer it to my conscience if I allow the children of this village to go on any longer the little heathens that they are. I must do something to alter their condition. I am quite aware that your ladyship disapproves of many of the plans which have suggested themselves to me; but never-

theless I must do something, and I am come now to your ladyship to ask respectfully, but firmly, what you would advise me to do."

His eyes were dilated, and I could almost have said they were full of tears with his eagerness. But I am sure it is a bad plan to remind people of decided opinions which they have once expressed, if you wish them to modify those opinions. Now Mr. Gray had done this with my lady; and though I do not mean to say she was obstinate, yet she was not one to retract.

She was silent for a moment or two before she replied.

"You ask me to suggest a remedy for an evil of the existence of which I am not conscious," was her answer—very coldly, very gently given. "In Mr. Mountford's time I heard no such complaints; whenever I see the village children (and they are not unfrequent visitors at this house, on one pretext or another), they are well and decently behaved."

"O, madam, you cannot judge," he broke in. "They are trained to respect you in word and deed; you are the highest they ever look up to; they have no notion of a higher."

"Nay, Mr. Gray," said my lady, smiling, "they are as loyally disposed as any children can be. They come up here every fourth of June, and drink his Majesty's health, and have buns, and (as Margaret Dawson can testify) they take a great and respectful interest in all the pictures I can show them of the Royal family."

"But, madam, I think of something higher than any earthly dignities."

My lady colored at the mistake she had made; for she herself was truly pious. Yet when she resumed the subject, it seemed to me as if her tone was a little sharper than before.

"Such want of reverence is, I should say, the clergyman's fault. You must excuse me, Mr. Gray, if I speak plainly."

"My lady, I want plain-speaking. I myself am not accustomed to those ceremonies and forms which are, I suppose, the etiquette in your ladyship's rank of life, and which seem to hedge you in from any power of mine to touch you. Among those with whom I have passed my life hitherto it has been the custom to speak plainly out what we have felt earnestly. So, instead of needing

any apology from your ladyship for straightforward speaking, I will meet what you say at once, and say that it is the clergyman's fault in a great measure when the children of his parish swear, and curse, and are brutal and ignorant of all saving grace; nay, some of them of the very name of God. And because this guilt of mine, as the clergyman of this parish, lies heavy on my soul, and every day leads but from bad to worse, till I am utterly bewildered how to do good to children who escape from me as if I were a monster, and who are growing up to be men fit for and capable of any crime, but those requiring wit or sense, I come to you, who seem to me all-powerful as far as material power goes—for your ladyship only knows the surface of things, and barely that, that pass in your village—to help me with advice and such outward help as you can give."

Mr. Gray had stood up and sate down once or twice while he had been speaking, in an agitated, nervous kind of way, and now he was interrupted by a violent fit of coughing, after which he trembled all over.

My lady rang for a glass of water, and looked much distressed.

"Mr. Gray," said she, "I am sure you are not well; and that makes you exaggerate childish faults into positive evils. It is always the case with us when we are not strong in health. I hear of you exerting yourself in every direction; you over-work yourself, and the consequence is, that you imagine us all worse people than we are."

And my lady smiled very kindly and pleasantly at him, as he sate, a little panting, a little flushed, trying to recover his breath. I am sure that now they were brought face to face, she had quite forgotten all the offence she had taken at his doings when she heard of them from others; and, indeed, it was enough to soften any one's heart to see that young, almost boyish face, looking in such anxiety and distress.

"O, my lady, what shall I do?" he asked, as soon as he could recover breath, and with such an air of humility that I am sure no one who had seen it could have ever thought him conceited again. "The evil of this world is too strong for me. I can do so little. It is all in vain. It was only to-day—" And again the cough and agitation returned.

"My dear Mr. Gray," said my lady (the day before, I could never have believed she

could have called him My dear), "you must take the advice of an old woman about yourself. You are not fit to do any thing just now but attend to your own health: rest, and see a doctor (but, indeed, I will take care of that), and when you are pretty strong again, you will find that you have been magnifying evils to yourself."

"But, my lady, I cannot rest. The evils do exist, and the burden of their continuance lies on my shoulders. I have no place to gather the children together in, that I may teach them the things necessary to salvation. The rooms in my own house are too small; but I have tried them. I have money of my own; and, as your ladyship knows, I tried to get a piece of leasehold property on which to build a school-house at my own expense. Your ladyship's lawyer comes forward at you. instructions to enforce some old feudal right, by which no building is allowed on leasehold property without the sanction of the Lady of the Manor. It may be all very true; but it was a cruel thing to do,—that is, if your ladyship had known (which I am sure you do not) the real spiritual and moral state of my poor parishioners. And now I come to you to know what I am to do? Rest! I cannot rest while children whom I could possibly save are being left in their ignorance, their blasphemy, their uncleanness, their cruelty. It is known through the village that your ladyship disapproves of my efforts, and opposes all my plans. If you think them wrong, foolish, ill-digested (I have been a student, living in a college, and eschewing all society but that of pious men until now: I may not judge for the best, in my ignorance of this sinful human nature), tell me of better plans and wiser projects for accomplishing my end; but do not bid me rest, with Satan compassing me round, and stealing souls away."

"Mr Gray," said my lady, "there may be some truth in what you have said. I do not deny it, though I think, in your present state of indisposition and excitement, you exaggerate it much. I believe—nay, the experience of a pretty long life has convinced me—that education is a bad thing, if given indiscriminately. It unfits the lower orders for their duties, the duties to which they are called by God, of submission to those placed in authority over them, of contentment with that state of life to which it has pleased God to call them, and of ordering themselves lowly and rever-

ently to all their betters. I have made this conviction of mine tolerably evident to you; and have expressed distinctly my disapprobation of some of your ideas. You may imagine, then, that I was not well pleased when I found that you had taken a rood or more of Farmer Hale's land, and were laying the foundations of a school-house. You had done this without asking for my permission, which, as Farmer Hale's liege lady, ought to have been obtained legally, as well as asked for out of courtesy. I put a stop to what I believed to be calculated to do harm to a village, to a population in which, to say the least of it, I may be supposed to take as much interest as you can do. How can reading and writing, and the multiplication-table (if you choose to go so far) prevent blasphemy, and uncleanness and cruelty? Really, Mr. Gray, I hardly like to express myself so strongly on the subject in your present state of health as I should do at any other time. It seems to me that books do little; character much; and character is not formed from books."

"I do not think of character: I think of souls. I must get some hold upon these children, or what will become of them in the next world? I must be found to have some power beyond what they have, and what they are rendered capable of appreciating before they will listen to me. At present, physical force is all they look up to; and I have none."

"Nay, Mr. Gray, by your own admission, they look up to me."

"They would not do any thing your ladyship disliked if it was likely to come to your knowledge; but if they could conceal it from you, the knowledge of your dislike to such or such a line of conduct would never make them cease from pursuing it."

"Mr. Gray," surprise in her air, and some little indignation, "they and their fathers have lived on the Hanbury lands for generations!"

"I cannot help it, madam. I am telling you the truth, whether you believe me or not." There was a pause; my lady looking perplexed, and somewhat ruffled; Mr. Gray as though hopeless and wearied out. "Then, my lady," said he, at last, rising as he spoke, "you can suggest nothing to ameliorate the state of things which, I do assure you, does exist on your lands, and among your tenants. Surely, you will not object to my using

Farmer Hale's great barn every Sabbath. He will allow me the use of it, if your ladyship will grant your permission."

"You are not fit for any extra work at present" (and indeed he had been coughing very much all through the conversation). "Give me time to consider of it. Tell me what you wish to teach. You will be able to take care of your health and grow stronger while I consider. It shall not be the worse for you, if you leave it in my hands for a time."

My lady spoke very kindly; but he was in too excited a state to recognize the kindness, while the idea of delay was evidently a sore irritation. I heard him say: "And I have so little time in which to do my work. Lord! lay not this sin to my charge."

But my lady was speaking to the old butler, for whom, at her sign, I had rung the bell some little time before. Now she turned round.

"Mr. Gray, I find I have some bottles of Malmsey, of the vintage of 1778, yet left. Malmsey, as perhaps you know, used to be considered a specific for coughs arising from weakness. You must permit me to send you half-a-dozen bottles, and depend upon it you will take a more cheerful view of life and its duties before you have finished them, especially if you will be so kind as to see Doctor Trevor, who is coming to see me in the course of the week. By the time you are strong enough to work I will try and find some means of preventing the children from using such bad language, and otherwise annoying you."

"My lady, it is the sin, and not the annoyance. I wish I could make you understand." He spoke with some impatience; poor fellow, he was too weak, exhausted, and nervous. "I am perfectly well; I can set to work to-morrow; I will do any thing not to be oppressed with the thought of how little I am doing. I do not want your wine. Liberty to act in the manner I think right, will do me far more good. But it is of no use. It is preordained that I am to be nothing but a cumberer of the ground. I beg your ladyship's pardon for this call."

He stood up, and then turned dizzy. My lady looked on, deeply hurt, and not a little offended. He held out his hand to her, and I could see that she had a little hesitation before she took it. He then saw me, I almost

think, for the first time; and put out his hand once more, drew it back, as if undecided, put it out again, and finally took hold of mine for an instant in his damp, listless hand, and was gone.

Lady Ludlow was dissatisfied with both him and herself, I was sure. Indeed I was dissatisfied with the result of the interview myself. But my lady was not one to speak out her feelings on the subject; nor was I one to forget myself, and begin on a topic which she did not begin. She came to me, and was very tender with me; so tender, that that, and the thoughts of Mr. Gray's sick, hopeless, disappointed look, nearly made me cry.

"You are tired, little one," said my lady. "Go and lie down in my room, and hear what Medicott and I can decide upon in the way of strengthening dainties for that poor young

man, who is killing himself with his over-sensitive conscientiousness."

"O, my lady!" said I, and then I stopped.

"Well. What?" asked she.

"If you would but let him have Farmer Hales' barn at once, it would do him more good than all."

"Pooh, pooh, child!" though I don't think she was displeased, "he is not fit for more work just now. I shall go and write for Doctor Trevor."

And for the next half-hour we did nothing but arrange physical comforts and cures for poor Mr. Gray. At the end of the time Mrs. Medicott said:

"Has your ladyship heard that Harry Gregson has fallen from a tree, and broken his thigh-bone, and is like for to be a cripple for life?"

"Harry Gregson! That black-eyed lad who read my letter? It all comes from over-education!"

WOOD EMBOSsing.—A newly invented process for so softening wood that it may be pressed into iron molds, and receive permanent and sharp impressions in bas-relief, has, under the name of Xyloplasty, attracted much notice in Paris. The wood is softened by steam, and imbued with certain ingredients, which impart to it sufficient ductility to enable it to receive bas-relief impressions from four to five millimetres in height. For medallions, bosses, &c., mastic is forced into the hollows, so that all tendency in the compressed wood to split or open is completely overcome. For bookbinding purposes much seems to be expected from this process, as it is applicable to the scented or odoriferous woods—cedar, teak, cypress, rose-wood, &c.—which are *vermifuge* in their nature; so that through their covers, books will in future be protected from the ravages of insects.

THE WISDOM OF THE SERPENT.—I observed (says Abbe Domeneck) that when I began to preach, several Frenchmen and young Creoles, having no great love for sermons, left the church and went to walk in my garden, where they amused themselves by making bouquets of my choicest flowers. For some time I sought an expedient which, without wounding the lively sensibilities of these gentlemen, would oblige them to remain in the church and respect my flowers. I found a very simple means of arriving at my end without betraying my intentions. In the menagerie, which I got up by degrees, was a fine looking wild boar, which I had trained up as a watch dog. On my going to

say high mass, I let him loose in the garden. At the sight of this new warder, the marauders made off with all possible speed, and returned to the church patiently to hear the sermon.

A SILENT PRINTING OFFICE.—In the town of Zablagen, Wurtemberg, there has been lately opened a new printing establishment, by M. Theodore Helgerad. All the compositors and pressmen are deaf and dumb, to the number of one hundred and sixty; eleven of the former are women. They have all been educated, at Mr. Helgerad's own cost, to the employment they are now engaged in. The king has conferred on him a large gold medal for this great reclamation from the social and moral waste.

SOLAR TELEGRAPH.—Experiments with a solar telegraph have been made with complete success in Paris, in the presence of Le Verrier, Liais, and Struve. The rays of the sun are projected from and upon mirrors; the duration of the ray makes the alphabet, after the system of Morse. It is proposed to apply it to the use of the French army in Algeria, where the ordinary telegraph cannot be worked. The posts can be established at twenty leagues from each other.

A BRUSSELS PAPER says that Dr. Andre Schleiermacher, one of the greatest scientific notabilities of Germany, died suddenly at Darmstadt, on the 11th July

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SMILING IN HIS SLEEP.

BY HARRIET W. STILLMAN.

THE baby sleeps and smiles.

What fairy thought beguiles

His little brain ?

He sleeps and smiles again,

Flings his white arms about,

Half opes his sweet blue eye

As if he thought to spy

By coyly peeping out,

The funny elf that brought

That tiny fairy thought

Unto his infant mind.

Would I some way could find

To know just how they seem,

Those dreams that infants dream.

I wonder what they are,

Those thoughts that seem to wear

So sweet a guise ?

What picture, tiny, fair,

What vision, lovely, rare,

Delights his eyes ?

See ! now he smiles once more ;

Perhaps there is before

His mental sight portrayed

Some vision blest

Of that dear land of rest,

That far-off heaven,

From whence his new-created soul

Has lately strayed ;

Or to his ear, perchance, are given

Those echoes sweet that roll

From angel harps, we may not hear,

We, who have added year to year,

And sin to sin.

As yet his soul is spotless. Why

Should not angelic harmony

Reach his unsullied ear ?

Why not within

His infant fancy transient gleams

Of heaven find their way in dreams ?

And still the baby sleeps,

And as he sleeps he smiles. Ah, now

He starts, he wakes, he weeps ;

Earth-shadows cloud his baby-brow.

His smiles how fleeting ; how

Profuse his tears.

Dreams he of coming years,

Checkered by shadow and by light,

Unlike that vision holy, bright,

That fairly gleam,

That infant dream

That made him sweetly smile ?

Do coming sin and sorrow,

Phantoms of dark to-morrow,

Their shadows cast before,

Clouding all o'er

His baby-dreams, erewhile

So beautiful ?

—*Olive Branch.*

GONE FORTH.

THE old, old house behind its silver trees,

Resounded with a concourse indistinct

Of many voices, like the hum of bees :

Laughter, and long-forgotten outcries, link'd

With voice of weeping sore, and loud lament

Confined within that ancient tenement.

Then, all at once I heard, as in a dream,

The sound of a familiar voice, that spoke

The word "Ilicet ;" * and as the bold stream

Bounds into life abruptly from its rock,

The babbling stream of erring youth broke forth,

To water the waste places of the earth :

And some went down among the jungle red,

With vigorous blood ; some in the sea that
scorns

To render up the census of its dead ;

And some sank lifeless at the very horns

Of pious altars ; some at the dull shrine,

By sordid human nature deem'd divine ;

And some, through evil, made themselves a
name ;And some, through good, disclaim'd the names
they made ;

And some received their recompense of shame ;

And some put on the purple that makes glad

Successful souls ; and some put on the dress

That renders men invisible in nothingness.

Then, last, the reverend master of the flock,

In pastoral offices grown old and grey,

Obey'd the word for forty years he spoke,

And left his fold, and slowly pass'd away :

His work was done, Ilicet, he has gone,

And o'er the old school-house silence its spell
has thrown !—*Household Words.*THE following beautiful Ode was written by
John G. Whittier for the Agricultural and Hor-
ticultural Exhibition at Amesbury, Sept. 28th.

This day, two hundred years ago,

The wild grape by the river's side,

And tasteless ground-nut trailing low,

The table of the woods supplied.

Unknown the apple's red and gold,

The blushing tint of peach and pear ;

The mirror of the Powow told

No tale of orchards ripe and rare.

Wild as the fruits he scorned to till,

These vales the idle Indian trod ;

Nor knew the glad, creative skill,

The joy of him who toils with God.

O Painter of the fruits and flowers !

We thank Thee for Thy wise design

Whereby these human hands of ours

In Nature's garden work with Thine.

And thanks, that from our daily need

The joy of simple faith is born ;

That he who smites the summer weed,

May trust Thee for the autumn corn.

Give fools their gold and knaves their power,

Let fortune's bubbles rise and fall ;

Who sows a field, or trains a flower,

Or plants a tree, is more than all.

For he who blesses most is blest ;

And God and man shall own his worth

Who toils to leave as his bequest

An added beauty to the earth.

And, soon or late, to all that sow

The time of harvest shall be given ;

The flower shall bloom, the fruit shall grow,

If not on earth, at last in heaven !

* You may go.

From Blackwood's Magazine.
COLLEGE THEATRICALS.

It wanted but two or three weeks to the Christmas vacation (alas! how many years ago!) and we, the worshipful society of undergraduates of—College, Oxford, were beginning to get tired of the eternal round of supper-parties which usually marked the close of our winter's campaign, and ready to hail with delight any proposition that had the charm of novelty. A three weeks' frost had effectually stopped the hunting; all the best tandem-leaders were completely screwed; the freshmen had been "larked" till they were grown as cunning as magpies; and the Dean had set up a divinity lecture at two o'clock, and published a stringent proclamation against rows in the Quad. It was, in short, during a particularly uninteresting state of things, with the snow falling lazily upon the grey roofs and silent quadrangle, that some half-dozen of us had congregated in Bob Thornhill's rooms, to get over the time between lunch and dinner with as little trouble to our mental and corporeal faculties as possible. Those among us who had been for the last three months promising to themselves to begin to read "next week," had now put off that too easy creditor, conscience, till "next term." One alone had settled his engagements of that nature, or in the language of his "*Testamur*"—the prettiest bit of Latin, he declared, that he ever saw—"*satisfecit examinadoribus*." Unquestionably, in his case, the examiners must have had the rare virtue of being very easily satisfied. In fact, Mr. Savile's discharge of his educational engagements was rather a sort of "whitewashing" than a payment in full. His passing was what is technically called a "shave," a metaphor alluding to that intellectual destiny which finds it difficult to squeeze through the narrow portal which admits to the privileges of a Bachelor of Arts. As Mr. S. himself, being a sporting man, described it, it was "a very close run indeed;" not that he considered that circumstance to derogate in any way from his victory; he was inclined to consider, that, having shown the field of examiners capital sport, and fairly got away from them in the end without the loss of his brush, his examination had been one of the very best runs of the season. In virtue whereof he was now mounted on the arm of an easy chair, with a long chibouque, which became the gravity of an incipient bachelor better

then a cigar, and took upon himself to give Thornhill (who was really a clever fellow, and professing to be reading for a first) some advice as to his conducting himself when his examination should arrive.

"I'll tell you what, Thornhill, old boy, I'll give you a wrinkle; it doesn't always answer to let out all you know at an examination. That sly old varmit, West of Magdalen, asked me who Hannibal was. 'Aha!' said I to myself, 'that's your line of country, is it? You want to walk me straight into those botheration Punic Wars; it's no go, though: I shan't break cover in that direction.' So I was mute.

'Can't you tell me something about Hannibal?' says old West again. 'I can,' thinks I, 'but I won't.' He was regularly flabbergasted; I spoilt his beat entirely, don't you see? So he looked as black as thunder, and tried it on in a fresh place. If I had been fool enough to let him dodge me in those Punic Wars, I should have been run into in no time. Depend upon it, there's nothing like judicious ignorance occasionally."

"Why," said Thornhill, "'when ignorance is bliss' (that is, when it gets through the schools), 'tis folly to be wise.'"

"Ah! that's Shakspeare says that, isn't it? I wish one could take up Shakspeare for a class! I'm devilish fond of Shakspeare. We used to act Shakspeare at a private school I was at."

"By Jove!" said somebody from behind a cloud of smoke—whose the brilliant idea was, was afterwards matter of dispute—"why couldn't we get up a play?"

"Ah! why not? why not?"

"It's such a horrid bore learning one's part," lisped the elegant Horace Leicester, half awake on the sofa.

"Oh, stuff!" said Savile, "it's the very thing to keep us alive! We could make a capital theatre out of the hall; don't you think the little vice-principal would give us leave?"

"You had better ask for the chapel at once. Why, don't you know, my dear fellow, the college hall, in the opinion of the dean and the vice, is held rather more sacred of the two? Newcome, poor devil, attempted to cut a joke at the high table one of the times he dined there after he was elected, and he told me that they all stared at him as if he had insulted them; and the vice (in confidence) explained to him that such 'levity' was treason against the *reverentia loci*!"

"Ay, I remember when the old villain Solomon, the porter, fined me ten shillings for walking in there with spurs one day when I was late for dinner; he said the dean always took off his cap when he went in there by himself, and threatened to turn off old Higgs, when he had been scout forty years, because he heard him whistling one day while he was sweeping it out! Well," continued Savile, "you shall have my rooms; I shan't trouble them much now. I am going to pack all my books down to old Wise's* next week, to turn them into ready tin; so you may turn the study into a carpenter's shop, if you like. Oh, it can be managed famously!"

So after a few *pros* and *cons*, it was finally settled that Mr. Savile's rooms should become the Theatre Royal, — College; and I was honored with the responsible office of stage-manager. What the play was to be, was a more difficult point to settle. Savile proposed *Romeo and Juliet* and volunteered for the hero; but it passed the united strength of the company to get up a decent *Juliet*. *Richard the Third* was suggested; we had "six Richards in the field," at once. We soon gave up the heroics, and decided on comedy; for since our audience would be sure to laugh, we should at least have a chance of getting the laugh in the right place. So, after long discussion, we fixed on *She Stoops to Conquer*. There were a good many reasons for this selection. First, it was a piece possessing that grand desideratum in all amateur performances, that there were several parts in it of equal calibre, and none which implied decided superiority of talent in its representative: secondly, there was not much *love* in it — a material point where, as an Irishman might say, all the ladies were gentlemen; thirdly, the scenery, dresses, properties, and decorations, were of the very simplest description: it was easily "put upon the stage." We found little difficulty in casting the male characters: old Mrs. Hardcastle, not requiring any great share of personal attractions, and being considered a part that would tell, soon found a representative; but when we came to the "donnas" — *prima* and *seconda* then it was that the manager's troubles began. It was really necessary, to insure the most moderate degree of success to the comedy, that Miss Hardcastle should have at least a lady-like deportment. The public voice, first

in whispers, then audibly, at last vociferously, called upon Leicester. Slightly formed, handsome, clever, and accomplished, with naturally graceful manners, and a fair share of vanity and affectation, there was no doubt of his making a respectable heroine if he would consent to be made love to. In vain did he protest against the petticoats, and urge with affecting earnestness the claims of the whiskers which for the last six months he had so diligently been cultivating: the chorus of entreaty and expostulation had its effect, aided by a well-timed compliment to the aristocratically small hand and foot, of which Horace was pardonably vain. Shaving was pronounced indispensable to the due growth of the whiskers; and the importance of the character, and the point of the situations, so strongly dwelt upon, that he became gradually reconciled to his fate, and began seriously to discuss the question whether Miss Hardcastle should wear her hair in curls or bands. A freshman of seventeen, who had no pretensions in the way of whiskers, and who was too happy to be admitted on any terms to a share in such a "fast idea" as the getting up a play, was to be the Miss Neville; and before the hall bell rang for dinner, an order had been dispatched for a dozen acting copies of *She Stoops to Conquer*.

Times have materially changed since Queen Elizabeth's visit to Christ-Church; the University, one of the earliest nurses of the infant drama, has long since turned it out of doors for a naughty child, and forbid it, under pain of worse than whipping, to come any nearer than Abingdon or Bicester. Taking into consideration the style of some of the performances in which undergraduates of some three hundred years ago were the actors, the "Oxford Theatre" of those days, if it had more wit in it than the present, had somewhat less decency. The ancient "moralities" were not over moral, and the "mysteries" rather Babylonish. So far we have had no great loss. Whether the judicious getting up of a tragedy of Sophocles or Æschylus, or even a comedy of Terence — classically managed, as it could be done in Oxford, and well acted — would be more unbecoming the gravity of our collected wisdom, or more derogatory to the dignity of our noble "theatre," than the squalling of Italian singers, masculine, feminine, and neuter, is a question which, when I have a seat in the Hebdomadal Council, I

* A well-known Oxford auctioneer of that day.

shall certainly propose. Thus much I am sure of,—if a classical playbill were duly announced for the next grand commemoration, it would “draw” almost as well as any lion of the day: the dresses might be quite as showy, the action could hardly be less graceful, than those of the odd-looking gentlemen who are dubbed doctors of civil law on such occasions; and the speeches of Prometheus, Œdipus, or Antigone, would be more intelligible to the learned, and more amusing to the ladies, than those Latin essays or the Creweian oration.

However, until I am vice-chancellor, the legitimate drama, Greek, Roman, or English, seems little likely to revive in Oxford. Our branch of that great family, I confess, bore the bar-sinister. The offspring of our theatrical affections was unrecognized by college authority. The fellows of — would have done any thing but “smile upon its birth.” The dean especially would have burked it at once had he suspected its existence. Nor was it fostered, like the former Oxford theatricals to which we have alluded, by royal patronage; we could not, consistently with decorum, request her Majesty to encourage an illegitimate. Nevertheless—spite of its being thus born under the rose, it grew and prospered. Our plan of rehearsal was original. We used to adjourn from dinner to the rooms of one or other of the company; and there, over our wine and dessert, instead of quizzing freshmen and abusing tutors, open each our acting copy, and, with all due emphasis and intonation, go regularly through the scenes of *She Stoops to Conquer*. This was all the study we ever gave to our parts; and even thus it was difficult to get a muster of all the performers, and we had generally to play dummy for some one or more of the characters, or “double” them, as the professionals call it. The excuses for absenteeism were various. Mrs. Hardcastle and Tony were gone to Woodstock with a team, and were not to be waited for; Diggory had a command to dine with the Principal; and once an interesting dialogue was cut short by the untoward event of Miss Neville’s being “confined”—in consequence of some indiscretion or other—“to chapel.” It was necessary in our management, as much as in Mr. Bunn’s or Mr. Macready’s, to humor the caprices of the stars of the company; but the lesser lights, if they became eccentric at all in their

orbits, were extinguished without mercy. Their place was easily supplied; for the moment it became known that a play was in contemplation, there were plenty of candidates for dramatic fame, especially among the freshmen; and though we mortally offended one or two aspiring geniuses, by proffering them the vacant situations of Ralph, Roger, and Co., in Mr. Hardcastle’s household, on condition of having their respective blue dress-coats turned up with yellow to represent the family livery, there were others to whom the being admitted behind the scenes, even in these humble characters, was a subject of laudable ambition. Nay, unimportant as were some parts in themselves, they were quite enough for the histrionic talent of some of our friends. Till I became a manager myself, I always used to lose patience at the wretched manner in which some of the underlings on the stage went through the little they had to say and do: there seemed no reason why the “sticks” should be so provokingly sticky; and it surprised me that a man who could accost one fluently enough at the stage door, should make such a bungle as some of them did in a message of some half-dozen words “in character.” But when I first became initiated into the mysteries of amateur performances, and saw how entirely destitute some men were of any notion of natural acting, and how they made a point of repeating two lines of familiar dialogue with the tone and manner, but without the correctness, of a schoolboy going through a task—then it ceased to be any matter of wonder that those to whom acting was no joke, but an unhappily earnest mode of getting bread, should so often make their performance appear the uneasy effort which it is. There was one man in particular, a good-humored, gentlemanly fellow, a favorite with us all,—not remarkable for talent, but a pleasant companion enough, with plenty of common-sense. Well, “he would be an actor”—it was his own fancy to have a part, and, as he was “one of us,” we could not well refuse him. We gave him an easy one, for he was not vain of his own powers, or ambitious of theatrical distinction; so he was to be “second fellow”—one of Tony’s pot-companions. He had but two lines to speak; but from the very first time I heard him read them, I set him down as a hopeless case. He read them as if he had just learned to spell the words; when he re-

peated them without the book, it was like a clergyman giving out a text. And so it was with a good many of the rank and file of the company; we had more labor to drill them into something like a natural intonation than to learn our own longest speeches twice over. So we made their attendance at rehearsals a *sine qua non*. We dismissed a promising "Mat Muggins" because he went to the "Union" two nights successively, when he ought to have been at "The Three Pigeons." We superseded a very respectable "landlord" (though he had actually been measured for a corporation and a pair of calves) for inattention to business. The only one of the supernumeraries whom it was at all necessary to conciliate, was the gentleman who was to sing the comic song instead of Tony (Savile, the representative of the said Tony, not having music in his soul beyond a view-holloa). He was allowed to go and come at our readings *ad libitum*, upon condition of being very careful not to take cold.

When we had become tolerably perfect in the words of our parts, it was deemed expedient to have a "dress rehearsal"—especially for the ladies. It is not a very easy to move safely—let alone gracefully—in petticoats, for those who are accustomed to move their legs somewhat more independently. And it would not have been civil in Messrs. Marlow and Hastings to laugh outright at their lady-loves before company, as they were sure to do upon their first appearance. A dress rehearsal, therefore, was a very necessary precaution. But if it was difficult to get the company together at six o'clock under the friendly disguise of a wine-party, doubly difficult was it to expect them to muster at eleven in the morning. The first day that we fixed for it, there came a not very lady-like note, evidently written in bed, from Miss Hardcastle, stating, that having been at a supper-party the night before, and there partaken of, brandy-punch to an extent to which she was wholly unaccustomed, it was quite impossible in the present state of her nervous system, for her to make her appearance in character at any price. There was no alternative but to put off the rehearsal; and that very week occurred a circumstance which was very near being the cause of its adjournment *sine die*.

"Mr. Hawthorne," said the dean to me one morning, when I was leaving his rooms, rejoicing in the termination of lecture, "I

wish to speak with you, if you please." The dean's communications were seldom of a very pleasing kind, and on this particular morning his countenance gave token that he had hit upon something more than usually piquant. The rest of the men filed out of the door as slowly as they conveniently could, in the hope, I suppose, of hearing the dean's fire open upon me; but he waited patiently till my particular friend, Bob Thornhill, had picked up carefully, one by one, his miscellaneous collection of note-book, pencil, penknife, and other small wares, and had been obliged at length to make an unwilling exit; when, seeing the door finally closed, he commenced with his usual—"Have the goodness to sit down, sir."

Experience had taught me, that it was as well to make one's-self as comfortable as might be upon these occasions; so I took the easy-chair, and tried to look as if I thought the dean merely wanted to have a pleasant half-hour's chat. He marched into a little back-room that he called his study, and I began to speculate upon the probable subject of our conference. Strange! that week had been a more than usually quiet one. No late knocking in; no cutting lectures at chapel; positively I began to think that, for once, the dean had gone on a wrong scent, and that I should repel his accusations with all the dignity of injured innocence; or had he sent for me to offer his congratulations on my having commenced in the "steady" line, and to ask me to breakfast? I was not long left to indulge such delusive hopes. Re-enter the dean (O.P., as our stage directions would have had it), with—a pair of stays!

By what confounded ill-luck they had got into his possession I could not imagine; but there they were. The dean touched them as if he felt their very touch an abomination, threw them on the table, and briefly said—"These, sir, were found in your rooms this morning. Can you explain how they came there?"

True enough, Leicester had been trying on the abominable articles in my bedroom, and I had stuffed them into a drawer till wanted. What to say was indeed a puzzle. To tell the whole truth would no doubt have ended the matter at once, and a hearty laugh should I have had at the dean's expense; but it would have put the stopper on *She Stoops to Conquer*. It was too ridiculous to look

grave about; and blacker grew the countenance before me, as, with a vain attempt to conceal a smile, I echoed his words, and stammered out—"In my rooms, sir?"

"Yes, sir, in your bedroom." He rang the bell. "Your servant, Simmons, most properly brought them to me."

The little rascal! I had been afraid to let him know any thing about the theatricals; for I knew perfectly well the dean would hear of it in half an hour, for he served him in the double capacity of scout and spy. Before the bell had stopped, Dick Simmons made his appearance, having evidently been kept at hand. He did look rather ashamed of himself, when I asked him, what business he had to search my wardrobe?

"Oh dear, sir! I never did no sich a thing! I was a-making of your bed, sir, when I sees the tag of a stay-lace hanging out of your topmost drawer, sir—(I am a married man, sir," to the dean apologetically, "and I know the tag of a stay-lace, sir)—and so I took it out, sir; and knowing my duty to the college, sir, though I should be very sorry to bring you into trouble, Mr. Hawthorne, sir"——

"Yes, yes, Simmons, you did quite right," said the dean. "You are bound to give notice to the college authorities of all irregularities, and your situation requires that you should be conscientious."

"I hope I am, sir," said the little rascal; "but indeed I am very sorry, Mr. Hawthorne, sir"——

"Oh! never mind," said I; "you did right, no doubt. I can only say those things are not mine, sir; they belong to a friend of mine."

"I don't ask who they belong to sir," said the dean indignantly; "I ask, sir, how came they in your rooms?"

"I believe, sir, my friend (he was in my rooms yesterday) left them there. Some men wear stays, sir," continued I, boldly; "it's very much the fashion, I'm told."

"Eh! hum!" said the dean, eyeing the brown jean doubtfully. "I have heard of such things. Horrid puppies men are now. Never dreamt of such things in my younger days; but then, sir, we were not allowed to wear white trousers, and waistcoats of I don't know what colors; we were made to attend to the statutes—'*Nigri aut subfusci*,' sir. Ah! times are changed—times are changed,

indeed! And do you mean to say, sir, you have a friend, a member of this university, who wears such things as these?"

I might have got clear off, if it had not been for that rascal Simmons. I saw him give the dean a look, and an almost imperceptible shake of the head.

"But I don't think, sir," resumed he, "these can be a man's stays—eh, Simmons?" Simmons looked diligently at his toes. "No," said the dean, investigating the unhappy garment more closely—"no; I fear, Simmons, these are female stays!"

The conscientious Simmons made no sign.

"I don't know, sir," said I, as he looked from Simmons to me. "I don't wear stays, and I know nothing about them. If Simmons were to fetch a pair of Mrs. Simmons's, sir," resumed I, "you could compare them."

Mrs. Simmons's figure resembled a sack of flour, with a string round it; and if she did wear the articles in question, they must have been of a pattern almost unique—made to order.

"Sir," said the dean, "your flippancy is unbecoming. I shall not pursue this investigation any further; but I am bound to tell you, sir, this circumstance is suspicious—very suspicious." I could not resist a smile for the life of me. "And doubly suspicious, sir, in your case. The eyes of the college are upon you, sir." He was evidently losing his temper, so I bowed profoundly, and he grew more irate. "Ever since, sir, that atrocious business of the frogs, though the college authorities failed in discovering the guilty parties, there are some individuals, sir, whose conduct is watched attentively. Good morning, sir."

The "business of the frogs," to which the dean so rancorously alluded, had, indeed, caused some consternation to the fellows of —. There had been a marvellous story going the rounds of the papers, of a shower of the inelegant reptiles in question having fallen in some part of the kingdom. Old women were muttering prophecies, and wise men acknowledged themselves puzzled. The Ashmolean Society had sat in conclave upon it, and accounted so satisfactorily for the occurrence, that the only wonder seemed to be that we had not a shower of frogs, or some equally agreeable visitors, every rainy morning. Now, every one who has strolled round Christ-Church meadows on a warm evening,

especially after rain, must have been greeted at intervals by a whole gamut of croaks; and if he had the curiosity to peer into the green ditches as he passed along, he might catch a glimpse of the heads of the performers. Well, the joint reflections of myself and an ingenious friend, who were studying this branch of zoölogy while waiting for the coming up of the boats one night, tended to the conclusion, that a very successful imitation of the late "Extraordinary Phenomenon" might be got up for the edification of the scientific in our own college. Animals of all kinds find dealers and purchasers in Oxford. Curs of lowest degree have their prices. Rats, being necessary in the education of terriers, come rather expensive. A polecat—even with three legs only—will command a fancy price. Sparrows, larks, and other small birds, are retailed by the dozen on Cowley Marsh to gentlemen undergraduates who are aspiring to the pigeon-trap. But as yet there had been no demand for frogs, and there was quite a glut of them in the market. They were cheap accordingly; for a shilling a-hundred we found that we might inflict the second plague of Egypt upon the whole university. The next evening, two hampers, containing, as our purveyor assured us, "very prime 'uns," arrived at my rooms "from Mr. S—, the wine merchant;" and by daylight on the following morning were judiciously distributed throughout all the comeatable premises within the college walls. When I awoke the next morning, I heard voices in earnest conversation under my window, and looked out with no little curiosity. The frogs had evidently produced a sensation. The bursar, disturbed apparently from his early breakfast, stood robed in an ancient dressing-gown, with the *Times* in his hand, on which he was balancing a frog as yellow as himself. The dean, in cap and surplice, on his way from chapel, was eagerly listening to the account which one of the scouts was giving him of the first discovery of the intruders.

"Me and my missis, sir," quoth John, "as a-coming into college when it was hardly to say daylight, when she, as I reckon, sets foot upon one of 'em, and was like to have been back'ards with a set of breakfast chiney, as she was a-bringing in for one of the fresh gentlemen. She scratches out, in course, and I looks down, and then I sees two or three a-oppin about; but I didn't

take much notice till I gets to the thoroughfare, when there was a whole row on 'em a-trying to climb up the bottom step; and then I calls Solomon the porter, and"—

Here I left my window, and, making a hasty toilet, joined a group of undergraduates, who were now collecting round the dean and bursar. I cast my eyes round the quadrangle, and was delighted with the success of our labors. There had been a heavy shower in the night, and the frogs were as lively as they could be on so ungenial a location as a gravelled court. In every corner was a goodly cluster, who were making ladders of each other's backs, as if determined to scale the college walls. Some, of more retiring disposition, were endeavoring to force themselves into crevices, and hiding their heads behind projections to escape the gaze of academic eyes; while a few active spirits seemed to be hopping a sweepstakes right for the common-room door. Just as I made my appearance, the Principal came out of the door of his lodgings, with another of the fellows, having evidently been summoned to assist at the consultation. Good old soul! his study of zoölogy had been chiefly confined to the class edibles, and a shower of frogs, authenticated upon the oaths of the whole Convocation, would not have been half so interesting to him as an importation of turtle. However, to do him justice, he put on his spectacles, and looked as scientific as anybody. After due examination of the specimen of the genus *Rana* which the bursar still held in captivity, and pronouncing a unanimous opinion, that, come from where he would, he was a *bona fide* frog, with nothing supernatural about him, the conclave proceeded round the quadrangle, calculating the numbers, and conjecturing the probable origin of these strange visitors. Equally curious, if not equally scientific, were the undergraduates who followed them; for, having strictly kept our own secret, my friend and myself were the only parties who could solve the mystery; and though many suspected that the frogs were unwilling emigrants, none knew to whom they were indebted for their introduction to college. The collected wisdom of the dons soon decided that a shower of full-grown frogs was a novelty even in the extraordinary occurrences of newspapers; and as not even a single individual croaker was to be discovered outside the walls of —, it became evi-

dent that the whole affair was, as the dean described it, "another of those outrages upon academic discipline, which were as senseless as they were disgraceful."

I daresay the dean's anathema was "as sensible as it was sincere;" but it did not prevent our thoroughly enjoying the success of the "outrage" at the time; nor does it, unfortunately, suffice at this present moment to check something like an inward chuckle, when I think of the trouble which it cost the various retainers of the college to clear it effectually of its strange visitors. Hopkins, the old butler, who was of rather an imaginative temperament, and had a marvellous tale to tell any one who would listen, of a departed bursar, who, having caught his death of cold by superintending the laying down of three pipes of port, might ever afterwards be heard, upon such interesting occasions, walking about the damp cellars after nightfall in pattens,—Hopkins, the oracle of the college "tap," maintained that the frogs were something "off the common;" and strengthened his opinion by reference to a specimen which he had selected—a lank, black, skinny individual, which really looked ugly enough to have come from anywhere. Scouts, wives, and children (they always make a point of having large families, in order to eat up the spare commons), all were busy, through that eventful day, in a novel occupation, and by dinner-time not a frog was to be seen; but long, long afterwards, on a moist evening, fugitives from the general proscription might be seen making their silent way across the quadrangle, and croakings were heard at night-time, which might (as Homer relates of *his* frogs) have disturbed Minerva, only that the goddess of wisdom, in chambers collegiate, sleeps usually pretty sound.

The "business of the stays," however, bid fair to supersede the business of the frogs, in the dean's record of my supposed crimes; and as I fully intended to clear myself, even to his satisfaction, of any suspicion which might attach to me from the possession of such questionable articles so soon as our theatre closed for the season, I resolved that my successful defence from this last imputation would be an admirable ground on which to assume the dignity of a martyr, to appeal against all uncharitable conclusions from insufficient premises, and come out as the per-

sonification of injured innocence throughout my whole college career.

When my interview with the dean was over, I ordered some luncheon up to Leicester's rooms, where, as I expected, I found most of my own "set" collected, in order to hear the result. A private conference with the official aforesaid seldom boded good to the party so favored; the dean seldom made his communications so agreeable as he might have done. In college, as in most other societies, La Rochefoucauld's maxim holds good, that "there is always something pleasant in the misfortunes of one's friends;" and whenever an unlucky wight did get into a row, he might pretty confidently reckon upon being laughed at. In fact, undergraduates considered themselves as engaged in a war of stratagem against an unholy alliance of deans, tutors, and proctors; and in every encounter the defeated party was looked upon as the deluded victim of superior ingenuity—as having been "done," in short. So, if a lark succeeded, the authorities aforesaid were decidedly done, and laughed at accordingly; if it failed, why the other party were done, and there was still somebody to laugh at. No doubt, the jest was richer in the first case supposed, but in the second there was the additional gusto, so dear to human philanthropy, of having the victim present, and enjoying his discomfiture, which, in the case of the dons being the sufferers, was denied us. It may seem to argue something of a want of sympathy to find amusement in misfortunes which might any day be our own; but any one who ever witnessed the air of ludicrous alarm with which an undergraduate prepares to obey the summons (capable of but one interpretation)—"The dean wishes to see you, sir, at ten o'clock"—which so often, in my time at least, was sent as a whet to some of the assembled guests at a breakfast-party; whoever has been applied to on such occasions for the loan of a tolerable cap (that of the delinquent having its corners in such dilapidated condition as to proclaim its owner a "rowing man" at once), or has responded to the pathetic appeal, "Do I look very seedy?"—any one to whom such absurd recollections of early days occur (and if you, good reader, are a university man, as, being a gentleman, I am bound in charity to conclude you are, and yet have no such reminiscences,

allow me to suggest that you must have been a very slow coach indeed)—any one, I say once more, who knows the ridiculous figure which a man cuts when “hauled up” before the college Minos or Radamanthus, will easily forgive his friends for being inclined to laugh at him.

However, in the present case, any anticipations of fun at my expense, which the party in Leicester's rooms might charitably entertain, were somewhat qualified by the fear that the consequences of any little private differences between the dean and myself might affect the prosperity of our unlicensed theatre. And when they heard how very nearly the discovery of the stays had been fatal to our project, execrations against Simmons's espionage were mingled with admiration of my escape from so critical a position.

The following is, I apprehend, a unique specimen of an Oxford bill, and the only one, out of a tolerably large bundle which I keep for the sake of the receipts attached (a precaution by no means uncalled for), which I find any amusement in referring to :

— HAWTHORNE, Esq,		
To M. MOORE.		
2 pr. brown jean corsets,	s. d.	
Padding for do., made to order, . . .	8 0	
	2 6	
	<hr/>	
	10 6	

Rec'd. same day, M. M.

Very much surprised was the old lady, of whom I made the purchase in my capacity of stage-manager, at so uncommon a customer in her line of business; and when, after enjoying her mystification for some time, I let her into the secret, so delighted was she at the notion, that she gave me sundry hints as to the management of the female toilet, and offered to get made up for me any dresses that might be required. So I introduced Leicester and his fellow-heroines to my friend Mrs. Morre, and, by the joint exertions of their own tastes and her experience, they became possessed of some very tolerable costumes. There was a good deal of fun going on, I fancy, in fitting and measuring, in her back parlor; for there was a daughter or a niece, or something of the sort, who cut out the dresses with the prettiest hands in the world, as Leicester declared; but I was too busy with carpenters, painters, and other assistants, to pay more than a flying visit to the ladies' department.

At last the rehearsal did come on. As

Hastings, I had not much in the way of dress to alter; and, having some engagement in the early part of the morning, I did not arrive at the theatre until the rest of the characters were already dressed and ready to begin. Though I had been consulted upon all manner of points, from the arranging of a curl for Miss Neville to the color of Diggory's stockings, and knew the costume of every individual as well as my own, yet so ludicrous was the effect of the whole when I entered the room, that I threw myself into the nearest chair, and laughed myself nearly into convulsions. The figure which first met my eyes was a little ruddy freshman, who had the part of the landlord, and who, in his zeal to do honor to our preference, had dressed the character most elaborately. A pillow, which he could scarcely see over, puffed out his red waistcoat; and his hair was cut short, and powdered with such good-will that for weeks afterwards, in spite of diligent brushing, he looked as grey as the Principal. There he stood, his legs clothed in grey worsted, retreating far beyond his little white apron, as if ashamed of their unusual appearance—

“The mother that him bare,
She had not known her son.”

Every one, however, had not been so classical in their costume. There was Sir Charles Marlow in what had been a judge's wig, and Mr. Hardcastle in a barrister's; both sufficiently unlike themselves, at any rate, if not very correct copies of their originals. Then the women! As for Mrs. Hardcastle, she was perfection! There never was, I believe, a better representation of the character. It was well dressed, and turned out a first-rate bit of acting—very far superior to any amateur performance I ever saw, and, with practice, would have equalled that of any actress on the stage. Her very curtsy was comedy itself. When I recovered my breath a little, I was able to attend to the dialogue which was going on, which was hardly less ridiculous than the strange disguises round me. “Now, Miss Hardcastle” (Marlow *loquitur*), “I have no objection to your smoking cigars during rehearsal, of course—because you won't do that on Monday night, I suppose; but I must beg you to get out of the practice of standing or sitting cross-legged, because it's not lady-like, or even bar-maid like—and don't laugh when I make love to you; for if you do, I shall break down to a certainty.” “Thornhill, do

you think my waist will do?" said the anxious representative of the fair Constance. "I have worn these cursed stays for an hour every evening for the last week, and drawn them an inch tighter every time; but I don't think I'm a very good figure after all—just try if they'll come any closer, will you?" "Oh! Hawthorne, I'm glad you are come," said Savile, whom I hardly knew, in a red wig; "now, isn't there to be a bowl of real punch in the scene at the Three Pigeons—one can't *pretend* to drink, you know, with any degree of spirit?"—"Oh! of course," said I; "that's one of the landlord's properties: Miller, you must provide that, you know: send down for some cold tankards now; they will do very well for rehearsal." At last we got to work, and proceeded, with the prompter's assistance, pretty smoothly, and mutually applauding each other's performance, going twice over some of the most difficult scenes, and cutting out a good deal of love and sentiment. The play was fixed for the next Monday night, playbills ordered to be printed, and cards of invitation issued to all the performers' intimate friends. Every scout in the college, I believe, except my rascal Simmons, was in the secret, and probably some of the fellows had a shrewd guess at what was going on; but no one interfered with us. We carried on all our operations as quietly as possible; and the only circumstance likely to arouse suspicion in the minds of the authorities, was the unusual absence of all disturbances of a minor nature within the walls, in consequence of the one engrossing freak in which most of the more turbulent spirits were engaged.

At length the grand night arrived. By nine o'clock the theatre in Savile's rooms was as full as it could be crammed with any degree of comfort to actors and audience; and in the study and bed-room, which, being on opposite sides, served admirably for dressing-rooms behind the scenes, the usual bustle of preparation was going on. As is common in such cases, some essential properties had been forgotten until the last moment. No bonnet had been provided for Mrs. Hardcastle to take her walks abroad in; and when the little hair-dresser, who had been retained to give a finishing touch to some of the coiffures, returned with one belonging to his "missis," which he had volunteered to lend, the roar of uncontrollable merriment which this new

embellishment of our disguised friend called forth, made the audience clamorous for the rising of the curtain—thinking, very excusably, that it was quite unjustifiable to keep all the fun to ourselves.

After some little trial of our "public's" patience, the play began in good earnest, and was most favorably received. Indeed, as the only price of admission exacted was a promise of civil behavior, and there were two servants busily employed in handing about punch and "bishop," it would have been rather hard if we did not succeed in propitiating their good-humor. With the exception of two gentlemen who had been dining out, and were rather noisy in consequence, and evinced a strong inclination occasionally to take a part in the dialogue, all behaved wonderfully well greeting each performer, as he made his first entrance, with a due amount of cheering; rapturously applauding all the best scenes; laughing (whether at the raciness of the acting, or the grotesque metamorphoses of the actors, made no great difference), and filling up any gap which occurred in the proceedings on the stage, in spite of the prompter, with vociferous encouragement to the "sticket" actor. With an audience so disposed, each successive scene went off better and better. One deserves to be particularized. It was the second in the first act of the comedy; the stage directions for it are as follows: "Scene—An alehouse room—Several shabby fellows with punch and tobacco; Tony at the head of the table, &c., discovered." Never, perhaps, in any previous representation, was the *mise en scène* so perfect; it drew three rounds of applause. A very equivocal compliment to ourselves it may be; but such jolly-looking "shabby fellows" as sat round the table at which our Tony presided, were never furnished by the supernumeraries of Drury or Covent Garden. They were as classical, in their way, as Macready's Roman mob. Then there was no make-believe puffing of empty pipes, and fictitious drinking of small-beer for punch; every nose among the audience could appreciate the genuineness of both liquor and tobacco; and the hearty encore which the song, with its stentorian chorus, was honored with, gave all the parties engaged time to enjoy their punch and their pipes to their satisfaction. It was quite a pity, as was unanimously agreed, when the entrance of Marlow and Hastings, as in duty bound, interrupted

so jovial a society. But "all that's bright
 soot fade"—and so the Three Pigeons'
 scene, and the play too, came to an end in
 due course. The curtain fell amidst univer-
 sal applause, modified only by the urgent re-
 quest, which, as manager, I had more than
 once to repeat, that gentlemen would be kind
 enough to restrain their feelings for fear of
 disturbing the dons. The house resolved it-
 self into its component elements—all went
 their ways,—the reading men probably to a
 Greek play, by way of afterpiece; sleepy ones
 to bed, and idle ones to their various inven-
 tions; and the actors, after the fatigues of
 the night, to a supper, which was to be the
 "finish." It was to take place in one of the
 men's rooms which happened to be on the
 same staircase, and had been committed to
 the charge of certain parties, who understood
 our notions of an unexceptionable spread.
 And a right merry party we were, all sitting
 down in character—Mrs. Hardcastle at the
 top of the table, her worthy partner at bot-
 tom, with the "young ladies" on each side.
 It was the best tableau of the evening; pity
 there was neither artist to sketch, nor specta-
 tors to admire it! But, like many other
 merry meetings, there are faithful portraits
 of it—proof impressions—in the memories of
 many who were present, not yet obliterated,
 hardly even dimmed, by time; laid by, like
 other valuables, which, in the turmoil of life,
 we find no time to look at, but not thrown
 aside or forgotten, and brought out some-
 times, in holidays and quiet hours, for us to
 look at once more, and enjoy their beauty,
 and feel, after all, how much what we have
 changed is "*cælum non animum*." I am
 now—no matter what. Of my companions
 at that well-remembered supper, one is a staid
 and orthodox divine; one a rising barrister;
 a third a respectable country gentleman, jus-
 tice of the peace, "and quorum;" a fourth,
 they tell me, a semi-Papist: but set us all
 down together in that same room, draw the
 champagne corks, and let some Lethe (the
 said champagne, if you please) wash out all
 that has passed over us in the last few years,
 and my word on it, three out of four of us
 are but boys still; and though much shaving;
 pearl powder, and carmine, might fail to make
 of any of the party a heroine of any more
 delicate class than Meg Merrilies, I have no
 doubt we could all of us once more smoke a
 pipe in character at "The Three Pigeons."

Merrily the evening passed off, and merrily
 the little hours came on, and song and laugh
 rather grew gayer than slackened. The
 strings of the stays had long ago been cut,
 and the tresses, which were in the way of the
 cigars, were thrown back in dishevelled ele-
 gance. The landlord found his stuffing some-
 what warm, and had laid aside half his fleshy
 encumbrance. Every one was at his ease,
 and a most uproarious chorus had just been
 sung by the whole strength of the company,
 when we heard the ominous sound of a quiet
 double-rap at the outer door.

"Who's there?" said one of the most self-
 possessed of the company.

"I wish to speak to Mr. Challoner," was
 the quiet reply.

The owner of the rooms was luckily in no
 more *outré* costume than that of Sir Charles
 Marlow; and having thrown off his wig, and
 buttoned his coat over a deep-flapped waist-
 coat, looked tolerably like himself as he pro-
 ceeded to answer the summons. I confess I
 rather hoped than otherwise that the gentle-
 man, whoever he was, would walk in, when,
 if he intended to astonish us, he was very
 likely to find the tables turned. However,
 even college dons recognize the principle that
 every man's house is his castle, and never vio-
 late the sanctity of even an undergraduate's
 rooms. The object of this present visit, how-
 ever, was rather friendly than otherwise.
 One of the fellows, deservedly popular, had
 been with the dean, and had left him in a
 state of some excitement from the increasing
 merriment which came somewhat too audibly
 across the quadrangle from our party. He
 had called, therefore, to advise Challoner
 either to keep his friends quiet, or to get rid
 of them, if he wished to keep out of the
 dean's jurisdiction. As it was towards three
 in the morning, we thought it prudent to take
 this advice as it was meant, and in a few min-
 utes began to wend our respective ways
 homewards. Leicester and myself, whose
 rooms lay in the same direction, were steer-
 ing along, very soberly, under a bright moon-
 light, when something put it into the heads
 of some other stragglers of the party to break
 out, at the top of their voices, into a stanza of
 that immortal ditty, "We won't go home till
 morning." Instantly we could hear a win-
 dow, which we well knew to be the dean's,
 open above us, and as the unmelodious chorus
 went on, his wrath found vent in the usual

strain—"Who is making that disturbance?"

No one volunteering an explanation, he went on.

"Who are those in the quadrangle?"

Leicester and I walked somewhat faster. I am not sure that our dignity did not condescend to run, as we heard steps coming down from No. 5, at a pace that evidently portended a chase, and remembered for the first time the remarkable costume which, to common observers, would indicate that there was a visitor of an unusual character enjoying the moonlight in the quadrangle. When we reached the "thoroughfare," the passage from the inner to the outer quadrangle, we fairly bolted; and as the steps came pretty fast after us, and Leicester's rooms were the nearest, we both made good our retreat thither, and sported oak.

The porter's lodge was in the next number; and hearing a knocking in that quarter, Leicester gently opened the window, and we could catch the following dialogue:—

"Solomon! open this door directly—it is I, the dean."

"Good dear sir!" said Solomon, apparently asleep, and fumbling for the keys of the college gates—"let you out? Oh yes, sir—directly."

"Listen to me, Solomon: I am not going out. Did you let any one out just now—just before I called you?"

"No, sir; nobody whatsomdever."

"Solomon! I ask you, did you not, just now, let a woman out?"

"Lawk! no, sir—Lord forbid!" said Solomon, now thoroughly awakened.

"Now, Solomon, bring your light, and come with me; this must be inquired into. I saw a woman run this way, and if she is not gone through the gate, she is gone into this next number. Whose rooms are in No. 13?"

"There's Mr. Dyson's, on the ground-floor."

Mr. Dyson was the very fellow who had called at Challoner's rooms. "Hah! well, I'll call Mr. Dyson up. Whose besides?"

"There's Mr. Leicester, sir, above his'n."

"Very well, Solomon; call up Mr. Dyson, and say I wish to speak with him particularly."

And so saying, the dean proceeded upstairs.

The moment Leicester heard his name mentioned, he began to anticipate a domicili-

ary visit. The thing was so ridiculous that we hardly knew what to do.

"Shall I get into bed, Hawthorne? I don't want to be caught in this figure."

"Why, I don't know that you will be safe there, in the present state of the dean's suspicions. No; tuck up those confounded petticoats, clap on your pea-jacket, twist those love-locks up under your cap, light this cigar, and sit in your easy-chair. The dean must be 'euter than usual if he finds you out as the lady he is in search of."

Leicester had hardly time to take this advice—the best I could hit upon at the moment—when the dean knocked at the door.

"Who are you? Come in," said we both in a breath.

"I beg your pardon, Mr. Leicester," said the dean in his most official tone; "nothing but actually imperative duty occasions my intrusion at this unseasonable hour, but a most extraordinary circumstance must be my excuse. I saw, gentlemen—I saw with my own eyes," he continued, looking blacker as he caught sight of me, and remembering, no doubt, the little episode of the stays—"I saw a female figure move in this direction but a few minutes ago. No such person has passed the gate, for I have made inquiry; certainly I have no reason to suppose any such person is concealed here; but I am bound to ask you, sir, on your honor as a gentleman—for I have no wish to make a search—is there any such person concealed in your apartments?"

"On my honor, sir, no one is or has been lately here, but myself and Mr. Hawthorne."

Here Dyson came into the room, looking considerably mystified.

"What's the matter, Mr. Dean?" said he, nodding good-humoredly to us.

"A most unpleasant occurrence, my dear sir; I have seen a woman in this direction not five minutes back. Unfortunately, I cannot be mistaken. She either passed into the porter's lodge or into this staircase."

"She is not in my rooms, I assure you," said he, laughing; "I should think you made a mistake: it must have been some man in a white mackintosh."

I smiled, and Leicester laughed outright.

"I am not mistaken, sir," said the dean warmly, "I shall take your word, Mr. Leicester; but allow me to tell you, that your

conduct in lolling in that chair, as if in perfect contempt, and neither rising, nor removing your cap, when Mr. Dyson and myself are in your rooms, is consistent neither with the respect due from an undergraduate, nor the behavior I should expect from a gentleman."

Poor Leicester colored, and unwittingly removed his cap. The chestnut curls, some natural and some artificial, which had been so studiously arranged for Miss Hardcastle's head-dress, fell in dishevelled luxuriance round his face; and as he half rose from his previous position in the chair, a pink-silk dress began to descend from under the pea-jacket. Concealment was at an end; the dean looked bewildered at first, and then savage; but a hearty laugh from Dyson settled the business.

"What, Leicester! you're the lady the dean has been hunting about college! Upon my

word, this is the most absurd piece of masquerading!—what on earth is it all about?"

I pitied Leicester, he looked such an extraordinary figure in his ambiguous dress, and seemed so thoroughly ashamed of himself; so, displaying the tops and cords in which I had enacted Hastings, I acknowledged my share in the business, and gave a brief history of the drama during my management. The dean endeavored to look grave: Dyson gave way to undisguised amusement, and repeatedly exclaimed, "Oh! why did you not send me a ticket? When do you perform again?"

Alas! never. Brief, as bright, was our theatrical career. But the memory of it lives in the college still—of the comedy, and the supper, and the curious mistake which followed it; and the dean has not to this hour lost the credit which he then gained, of having a remarkably keen eye for a petticoat.

THE GOLDEN CHAIN OF JEREMY TAYLOR.

—Your correspondent Eirionnach, whose wealth in Golden Chains is remarkable, may not be displeased to add another to his store. I have before me a small 18mo. volume, printed by *Thos. Norris at the Looking-Glass on London Bridge*, 1719, entitled,—

"A Golden Chain to link the Penitent Sinner unto God; whereunto is added a Treatise on the Immortality of the Soul, by J. Taylor, D.D. With a Portrait of Jeremy Taylor, by Drapentier."

This volume is, I suppose, rare, as the treatise is not contained in the collected edition of Taylor's *Works*, and this is my excuse for copying some verses which serve as an introduction to the book. They are rather striking. I should be glad if any one could authenticate them as Taylor's own; if so, they are, perhaps, a unique specimen of Taylor's poetry in actual rhythmical numbers, though there is abundance of the material in his works.

"A VIEW OF VANITY."

"Wit, Wisdom, Beauty, Honor, Nature, Art, Virtue, and Valor, each have play'd a part Upon the World's great Stage: The Play is done,

Each Action censur'd, and a new begun.

Wit played the Politician, Art the King,

Wisdom the Judge, and Beauty well could Sing

The *Siren's* Song; for with a pleasing Smile,

She play'd the Parasite, and did beguile.

Virtue array'd in everlasting green,

Descended from above, and play'd the Queen.

Valor was Honor's Servant, and did fight

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All doubtful Duels in his Master's right.

Honor was born and bred in Virtue's School,
And play'd the Lord; and Nature play'd the Fool.

Wit's Wiles are lost, and Wisdom's Laws repeal'd,

Beauty defac'd, Art's Ignorance reveal'd,

Honor defeated, Valor overthrown,

Nature derided, Virtue's merit known;

For only she beyond the other Seven,

Hath left the Earth, to act her part in Heaven."

—Notes and Queries.

LETHREDIENSIS.

THE GOSPEL AND THE BAYONET.—Let us pay all honor to fighting men; all needful honor. In our transition state, they are our best guarantees of national freedom. But let us hope that the Gospel has a brighter light than that which gleams from bayonets. Gunpowder is not the best frankincense.—*Jerrold*.

PERFECT DISCONTENT.—An old lady was in the habit of talking to Jerrold in a gloomy depressing manner, presenting to him only the sad side of life. "Hang it," said Jerrold, one day, after a long and sombre interview, "she wouldn't allow there was a bright side to the moon!"

A WORD FOR THIEVES.—When the full-grown thief is hanged, do we not sometimes forget that he was the child of misery and vice, —born for the gallows, —nursed for the halter? Did we legislate a little more for the cradle, might we not be spared some pains for the hulks?—*Jerrold*.

From The Englishwoman's Journal.
MARIA EDGEWORTH.

AMONGST the changes which have taken place in the gradual progress of society, perhaps the most remarkable is that which has occurred in the position, social and intellectual, of WOMAN.

The time was, when the following appeal from the pen of an anonymous champion* was perfectly applicable, though we feel now astonished to think that it should ever have been necessary.

"I am for treating women like rational beings, not like spoiled children, who must be contradicted or thwarted; I would have them reasoned with, not laughed at; put aside by an appeal to their good sense, not by sarcasm, a bow or a joke; dealt plainly with, not flattered. In a word, I would have them treated *like men of common sense*. They are not inferior to men, only *unlike* them; each sex has qualities of which the other is destitute, either entirely or in part; but all, fitted and designed for the mutual comfort of both."

In speaking on this subject, when we describe past days as "that time when a young lady's education consisted in learning to work her sampler, and to study the Bible and the cookery book"—we speak almost proverbially; and probably the sarcastic lines of Pope (though he knew a lady Mary Wortley) describe with tolerable accuracy the estimation in which in his day the sex was almost generally held.

"Nothing so true as what you once let fall
Most women have no character at all."

True, even in these "dark ages" of woman, we may trace as it were a chain of female talent,—or perhaps to express it more happily, a line of light stretching along the murky sky of ignorance—as we think of the names of Thrale and Montague, Carter and Chapone, More and Barbauld, Burney and Austin: but these were regarded as exceptions to a general rule, and that degree of mental cultivation, which is at present not only tolerated but admired, required in them some courage to attain, and much *counterbalancing* merit to make permissible. The high-pressure engine of prejudice, produced a natural reaction; and, as extremes will meet, then sprang up the wildnesses of the Wolstoncroft school, and all its ultra-theories. But at length that happy time has come, when woman has found her proper level; where, without overstepping

* In Blackwood's Magazine.

the lines prescribed by Almighty wisdom, she fulfils the intention of Almighty goodness, and finds herself regarded as the cultivated companion, valued as the enlightened friend, cherished in short as the Being, bestowed by the Creator—to be a Help, MEET for man.

Of what women ought to be, and is capable of being, Maria Edgeworth was a bright example. Well informed without being pedantic, witty without being sarcastic, and, though gifted with brilliant intellectual powers, abounding in that courtesy which graces the female manner, and those gentler "charities" which form the happiness of home. If not the founder of a new school of literature, she certainly in no small degree improved its tone. Her great aim was to raise to the proper rank those humbler virtues on which the felicity of ordinary life depends; and to show that the loftiest principles are usually united with the gayest tempers and the most amiable manners.

Her efforts were directed chiefly towards the young, and towards the middle classes of society, and a striking testimony to their success, was borne—as well as by many others—by the son of our late excellent friend Mr. Holland, for whose ultimate death his mother wept, not long before we sorrowed for her own! Made Pastor of a thickly populated London parish, his first step was to establish a lending library, and he always declared that he found no works so useful nor so popular amongst his readers, as the volumes of Maria Edgeworth.

Richard Lovell Edgeworth, the father of Maria, was the son of an Irish gentleman, who had married the daughter of Sir Salathiel Lovell, Recorder of London: Mr. R. L. Edgeworth was born in England, and remained in that country till he was sent over to Drogheda, to be educated by the celebrated Dr. Norris. He entered Trinity College, Dublin, but was subsequently removed to that of Corpus Christi, at Oxford, and while yet an Oxonian, in 1763, married Miss Elers of Black-Burton, where his eldest son, Richard, was born. About two years afterwards, he went to reside at Hare-Hatch, in Berkshire, where he remained for some time. Maria, his eldest daughter, was however born at her grandfather's at Black-Burton, on the 1st of January, 1767.

Her mother dying when Maria was but seven years old, her father in 1773, was uni-

ted to Honora Sneyd, the early love of the unfortunate Major André, and with her he went to reside at his paternal mansion in Edgeworthstown, in the county of Longford, having first placed his little daughter at an English school. Needlework was much insisted on by her governess, and the tasks which were exacted of the pupils were particularly distressing to Maria, whose health was delicate, and who was subject to weakness of sight; but she soon devised a happy expedient, one in which her inventive powers were early called into play. Some good natured schoolfellow was generally prevailed on to execute the needlework for her, whom she repaid by reciting stories, sometimes humorous, sometimes sad, which were invented as she proceeded, and prolonged, according to the task-work required. Many of her vacations were passed with Mr. and Mrs. Day, very much to the advantage of her reasoning powers, as well as to her real information, as she read and conversed much with Mr. Day, author of the well-known work—“*Sandford and Merton*.”

Mr. Edgeworth remained in Ireland three years, when he once more took a place in Berkshire, where he lost his wife the beautiful Honora. In 1780, he married Mrs. Elizabeth Edgeworth, and about two years afterwards, resolved on leaving England, and devoting the remainder of his life to the improvement of his estate and the education of his family. Accordingly, removing Maria from school, accompanied by his wife and seven children, in 1782 he fixed his residence at Edgeworthstown. An entertaining account of his daughter's first impression of Ireland, is given by the animated pen to which Ireland was afterwards to owe so much.

“Before this time I had not, except during a few months of my childhood, ever been in that country, therefore every thing was new to me, and though I was then but fifteen years old, and though such a length of time has since elapsed, I have retained a clear and strong recollection of our arrival. Things and persons are so much improved in Ireland, of latter days, that only those who can remember how they were some thirty or forty years ago, can conceive the variety of domestic grievances which in those times assailed the master of a family, immediately on his arrival at his Irish home. Wherever he turned his eyes, in or out of the house, damp, dilapidation, waste, appeared. Painting, glazing,

roofing, fencing, finishing, all were wanting. Alternately as landlord and magistrate, the proprietor of an estate had to listen to perpetual complaints, petty wrangings and equivocations, in which no human sagacity could discover truth, or award justice! I was with my father continually, and I was amused and interested in seeing how he made his way through complaints, petitions and grievances, with decision and dispatch. He, all the time in good humor with the people and they delighted with him, though he often “rated them roundly” when they stood before him, perverse in litigation, helpless in procrastination, detected in cunning, or convicted of falsehood. They saw into his character almost as soon as he understood theirs. The first remark which I heard whispered aside among the people, with congratulating looks at each other, was, ‘His honor, any way is good pay!’”

The old house at Edgeworthstown, with its gloomy rooms, narrow windows, and corner chimnies, looked as uninviting as could well be imagined, but the activity and good taste of its new master soon produced a happy change, and, modernized and enlarged under his directions, it became not only a comfortable residence for a large family, but capable of accommodating many guests.

Thrown into a distant country neighborhood,—Pakenham Hall and Castle Forbes, the nearest visiting houses, being, the one twelve, and the other, nine Irish miles from Edgeworthstown,—Maria saw for some time little society, but that little was good; and the high-toned principles of Lady Longford, “fit to be the mother of heroes,” and the lofty and cultivated mind of Lady Moira, whose son was the famous Lord Moira, afterwards Marquis of Hastings, made a deep impression upon her youthful imagination. The inmates of Edgeworthstown were not however dependent upon “the world” for happiness. The education of his family was the paramount object of Mr. Edgeworth's energetic mind, he felt persuaded that he could advantageously depart from the beaten track, and though, like other experimentalists, he was obliged to make many alterations in his earlier theories, it is but just to his memory to say that he seems by experience to have attained the art of blending instruction and interest most happily together. “I am every day,” he writes in 1794, to his friend, Dr. Darwin, author of the “*Botanic Garden*” “more convinced of the advantages of good education. I do not

think one tear per month, is shed in the house, nor the voice of reproof heard, nor the hand of restraint felt."

The affection of Miss Edgeworth for her father was enthusiastic; so much so, she declared to an intimate friend, that she "even loved to be reproved by him;" it seemed to be increased rather than lessened by his requiring the most instant and unreserved obedience. When she was a very little girl, he imposed on her for some childish fault, the penalty of walking round a certain grass plot without stopping to rest, until he returned from a morning call which he was about to make: he was accidentally delayed, so that the duration of her punishment was much longer than he had contemplated; one of the servants, pitying the weary little culprit, brought her some luncheon, and entreated that she would sit down for a few minutes to rest and eat; but the child resolutely refused, her father had desired her not to do so, and she would not disobey him.

In October, 1789, she and her father lost their steady friend, Mr. Day, who was killed by a fall from his horse: and in the next year the family were plunged into the deepest sorrow by the death of Honora, daughter of Mrs. Honora Edgeworth, whose beauty even surpassed that of her mother. Some months previously she had been taken to Dublin for a few days by her aunt, Mrs. Ruxton, of Black Castle, in the county of Meath, who has often mentioned that she attracted so much admiration that crowds followed in the streets pressing round to have a sight of her; and on one evening when she was taken to the Rotunda, the Dublin Ranelagh of those days, the admiration she excited was so inconvenient as to oblige her to leave in a very short time. Miss Edgeworth felt her loss acutely, and has paid a touching and graceful tribute to her memory, by introducing into the first part of the "Early Lessons" her pretty fairy tale of *Rivuletta*.

"'Mamma,' said Rosamond, 'is it true that somebody really dreamt that nice dream, and who was it?'—'It is not true, my dear: it was invented and written by a very young person.' 'How old was she when she wrote it, mamma?'—'She was just thirteen.' 'Was she good, mamma? was she like Laura, or was she vain and proud?'—'She was good: she was neither vain nor proud, though she was uncommonly beautiful, and superior in understanding to any person of her age that

I ever was acquainted with.' 'Was, mamma?' said Laura.—'Was, my dear, she is no more: her parents lost her when she was but fifteen!'"

Apprehensive regarding the health of another of his children, Mr. Edgeworth, in 1792, removed with his family to Clifton, where Maria made her first acquaintance with "the world," her father however carefully following up one of his favorite maxims, "no company, or good company." But by *good* he meant, not "the fine," but the cultivated and the well-bred; and his favorite companions being Mr. Watt, Dr. Darwin, Mr. Wedgewood, Mr. Kier, and other kindred spirits, Miss Edgeworth, though at a fashionable watering place, continued to breathe an intellectual atmosphere. When Mr. (afterwards Dr.) Beddoes, whose medical reputation was subsequently so high, first came to Clifton, he brought to Mr. Edgeworth an introductory letter from Mr. Kier, and Mr. Edgeworth, who admired his abilities, materially assisted in establishing the young physician at Clifton.

The mode of life there, however, suited the taste neither of Miss Edgeworth's father nor mother; and hearing in the autumn of 1793 that political disturbances were beginning to break out in Ireland he considered it his duty to return there immediately. "Our preparations for leaving Clifton," says Maria, "seemed particularly to grieve and alarm Dr. Beddoes. During the summer's acquaintance with our family he had become strongly attached to one of my sisters, Anna. In consequence of the declaration of his passion, and to give her opportunity to see more of him, my father remained some time longer in Clifton. She decided to return with us to Ireland that autumn to take further time to judge of the permanence of Dr. Beddoes' feelings, and of her own. He had permission to follow her in the spring, and they were married at Edgeworthstown on the 17th of April, 1794."

The aspect of affairs in Ireland grew darker and darker. Towards the end of 1794, rumors of a French invasion spread throughout the country; and it becoming necessary that Government should possess means of imparting and receiving intelligence in the most rapid manner possible, Mr. Edgeworth proposed the establishment of *telegraphic* communication, a scheme which had occupied

his inventive powers so far back as the year 1767, when he had tried a nocturnal telegraph, with lamps and illuminated letters, between London and Hampstead. In these days when the telegraph is employed with such eminent success that the wonder seems to be how the world did so long without it, it is but giving honor to whom honor is due to mention Mr. Edgeworth as one of its first British inventors. The proposal did not, however, find favor in the eyes of Government, and was in 1776 declined in a polite letter from the secretary.

From childhood Maria had, like many little *incipient* authors, a habit of scribbling her juvenile compositions on the backs of letters, or such other *matériel* as fell in her way; and in the meridian of literary fame she used to recall the delight she felt on first possessing what seemed to her a treasure inexhaustible, "an entire sheet of paper!" This taste was encouraged by her father, who suggested her attempting an English version of "Adèle and Têodore." It promised well, but was never published, being superseded by a translation also from the pen of a lady.

Mr. Day who had been deeply prejudiced against female authorship by some instances of indiscretion which he had seen in ladies of literary talent, always maintained that

"Of those who claim it, more than half have none,
And half of those who have it, are undone."

On Miss Edgeworth relinquishing her "Adelaide and Theodore," he wrote a congratulatory letter to her father, which drew from him an energetic defence of female literature. The substance of that correspondence remained in Maria's retentive memory, and from her recollection was afterwards produced her "*Letters for Literary Ladies*," to which was added the witty "*Essay on the noble Science of Self-justification*." This volume which was not published till 1795, long after the death of Mr. Day, came out anonymously, and met with the most favorable reception.

A slight intimation of her writing for the world was given by her father in the following year to his friend Dr. Darwin.

"Some time ago you advised us to read Dugald Stewart, and write upon education. Stewart we have read with profit and pleasure, and we are writing upon education. Maria recurs frequently to your authority, in

a chapter on 'Attention,' and has, I think,—pardon my paternal partiality,—managed your gigantic weapons with as much adroitness as could be expected from a dwarf."

Mr. Edgeworth, Mrs. Honora, and Mrs. Elizabeth E., had for many years kept notes of observations relative to the training and characters of his children, and these notes which were followed up and arranged by his daughter, formed the ground work of "*Practical Education*." This book, which was the joint production of herself and her father, was published in the course of 1797, when the name of Maria Edgeworth first appeared before the literary world.

In the October of this year Mrs. Edgeworth, who had for a long time suffered from that trying disease, consumption, died. In speaking of her, her husband always said, that amongst other admirable qualities she possessed a peculiarly large proportion of that essential one, *good sense*; happily defined by him as "that habit of the understanding which employs itself in forming just estimates of every object that lies before it, and in regulating the temper and conduct." By her death he was left a widower with a numerous family. His youngest child was but three years old, and two of his daughters just at the age when a mother's care is of most importance. "All who had seen how much the felicity of his life depended upon conjugal affection were aware that he could not be happy unless he married again," but, little did he foresee when he first met the object of his latest, perhaps fondest attachment, the happy influence she was in after years to diffuse throughout his home.

The meeting alluded to had taken place, upon his marriage with Miss Honora Sneyd, when he had made a bridal visit to his sister Mrs. Ruxton, at Black Castle. Mrs. Ruxton had invited to meet them Dr. Beaufort, afterwards author of the excellent ecclesiastical map of Ireland, and valuable statistical memoir of that country. Dr. Beaufort's highly cultivated mind, and the polish of manner which distinguished him, at once attracted Mr. Edgeworth; nor could he fail, observant as he always was of children, to notice his little daughter Fanny, then a pretty child of six years old, "in a white frock and pink sash," of which he thought she was rather too full of admiration.

An interval of some years passed before

any intimacy took place between Mr. Edgeworth and Dr. Beaumont, although occasional meetings occurred; both parties having been resident during that period in different parts of England, but they became better acquainted when assisting Lord Charlemont in the establishing and arrangement of the Royal Irish Academy. And when the Vicarage of Collon in the county of Louth was given to Dr. Beaufort by Mr. Foster (afterwards Lord Oriel), they frequently met at the house of their joint and excellent friend and also at that of his sister, Mrs. Ruxton.

Early in 1797, at Mrs. Ruxton's suggestion, Mr. Edgeworth asked Miss Beaufort, the little Fanny of former years, to design vignettes for "*The Parent's Assistant*," then ready to be published. She complied with his request, and those who have seen the three first editions of these excellent stories must perceive the superiority of her designs to the illustrations by which they have been succeeded. In the summer of the same year, Mrs. Beaufort, her eldest daughter, and a younger one paid a visit for several days at Edgeworthstown, Mrs. Elizabeth Edgeworth being then pretty well, her health however soon after declined, and, as we have said, she expired in the month of October.

In the spring of 1798, Dr., Mrs., and Miss Beaufort paid a visit of some length at Edgeworthstown, and Mr. Edgeworth became convinced that she was precisely the person to whom he could venture to entrust his own happiness, and that of his children. He was able to study her character satisfactorily, from her open and unembarrassed manner; the disparity of their years having prevented her from suspecting his attachment till a few hours before it was declared. Her parents left her entirely to her own judgment,—“his eloquent affection conquered her timidity,” and she consented to take the responsible charge of the happiness of so many. They were married on the 31st of May by her brother, the Rev. William Beaufort,* at St. Anne's Church, in Dublin, and arrived late in the same evening at Edgeworthstown. “Of her first entrance and appearance,” says Maria, “I can recollect only the general im-

pression, that it was quite natural, without effort or pretension, the chief thing remarkable was, that she, of whom we were all thinking so much, seemed to think so little of herself.”

Miss Edgeworth did not anticipate the happy consequences from this union which her father did; but she quickly found reason to change her opinion, and with her usual frankness says so. “Soon after this marriage, things and persons found themselves in their proper places, and the fear of change which had perplexed numbers was gradually dispelled. Mrs. Edgeworth was found always equal to the occasion, and superior to the expectation. Of all the blessings we owe to *Him*, this has proved the greatest.” The testimony given to the world by her pen, was corroborated by her lips to a friend of our own, who was related to Mrs. E., and expressed her deep satisfaction on knowing that she was so much beloved, “Beloved!” exclaimed Maria in her enthusiastic manner, “beloved seems a cold word to apply to her—amongst us she has been an angel!”

The year 1798, possesses in the annals of Ireland, a “bad eminence” as that in which the Irish Rebellion raged in its fullest force; extending its malignant influence over the greatest portion of the island. The county of Longford shared in the turbulence and alarm of the times; its Roman Catholic inhabitants, who were notoriously unsanctified, were joined by the people of the neighboring county of Westmeath, and when it was known that the French army under General Humbert, had landed at Killalla, on the west coast of Ireland, and were marching forward, they rose in a body, and attacked the village and house of Edgeworthstown. Happily, the family had escaped to Longford. Mr. Edgeworth and his son Henry marched with the Edgeworthstown corps of yeomanry. His wife rode on horseback, and the rest of the ladies and children were crammed into two carriages. The town, already crowded with troops and fugitives from the surrounding country, afforded but small accommodation, and the whole family, eleven in number, were lodged in two very small rooms at the hotel. Here Maria found sleep impossible; and as she lay, or rather, tossed restlessly about her bed, she heard, as she thought, suppressed screams frequently repeated. In a strange house, and utter darkness, she could do noth-

* Rector of Glanmire and Prebendary of Cork. That excellent minister has, to the loss of an attached circle of friends, some few years since been called to his heavenly rest, by Him to whose service he long and faithfully devoted talents of an uncommon order, and the highest powers of a highly gifted mind.

ing; and in the misery of doing nothing, her excited imagination began to picture terrific scenes of strife, imprisonment, and suffering. With the first dawn of light she sprang from her bed, and hastening to the side from which the sounds had seemed to come, she discovered a *death's head moth*, of uncommonly large size, one of the few insects of that tribe which have the power of sound.

Another trifling anecdote of this time may be mentioned. One of Mr. Edgeworth's sons, a boy about ten years old, in the hurry of getting off with the yeomanry, forgot his strong shoes. The thin ones which he had hastily put on, soon became worse than nothing, when his sister Emmeline pitying the suffering and uncomplaining child, took off her walking boots, threw them to him out of the carriage window, and thus (though they were much too large) enabled him to struggle through six weary Irish miles!

The French army accompanied by their insurgent allies, who were more a hindrance than an advantage, quitted Killalla. They were worsted by the King's troops on two occasions, and finally defeated at Ballinamuck, about five miles from Edgeworthstown.

After a few days' stay at Longford, the Edgeworth family returned home; and all things around them being again quiet, Maria with her father and mother visited Clifton in the spring of 1799, where she was introduced to several contemporary authors, and where a friendship was begun with Mrs. Barbauld which continued to the end of that lady's life.

Miss Edgeworth's very entertaining "*Castle Rackrent*" appeared in 1800. Some of the incidents which produced the outline of the tale, were furnished by the history of one of her own ancestors. Others were suggested by circumstances which had occurred in different parts of Ireland. This work was pronounced by one of her critics, as "sufficient to establish her reputation as a painter of Irish nature."

In the conversations in which the story is told, she has shown in a most amusing way, her shrewd observation, and her thorough acquaintance with the Irish character. In this year too, a third edition was issued of the first three volumes of "*The Parent's Assistant*," to which she added three more volumes of tales, of equal merit with their companions, all with frontispieces from Mrs. Edgeworth's designs.

In 1801, Miss Edgeworth again came before the world, by the publication of "*Belinda*." It caused a considerable sensation; some of her critics regretted the absence of that rich Irish humor, which had so much delighted the readers of her previous works. Others accused her of misrepresenting their fashionable world, but almost all agreed in admiring the elegance of the writing, and the light and graceful wit of the conversations. In 1801, was also brought out the first part of her "*Early Lessons*," as well as six volumes of her charming "*Moral Tales*," at once so spirited, and so well suited to the youthful taste, as to be read over and over again with constantly increasing pleasure. "No one," says a modern reviewer, "can help admiring the easy and graceful way in which she manages her incidents and characters, so as to make them all bear upon the great purpose of instruction—the particular moral which she endeavors to impress." It is not in depreciation of the others, that we would name as our own especial favorites, "*Forrester*," "*L'Amie inconnue*," and "*The good French Governess*."

In 1802, Monsieur Pictët, brother to the editor of the "*Journal Britannique*," who had translated "*Practical Education*" into French, came over, as well as many other foreigners, to England, and, extending his travels to the Sister Isle, visited Edgeworthstown. The acquaintance was mutually pleasing, and Mr. Edgeworth, tempted by his offers of introduction to numerous literary persons in Paris, and desirous of forming new and congenial friendships as well as of "keeping his old ones in repair," arranged a tour for the following autumn. Amongst those of his former intimates whom he most wished to see, was Dr. Darwin, when he received a letter, full of life and playfulness, begun by his well-known hand, but finished by that of another, telling of the sudden death of this long known and highly valued friend.

By this event, the pleasure of the projected tour was sadly damped; it was not however relinquished, and towards the close of 1802, Miss Edgeworth, with her sisters Emmeline and Charlotte, accompanied their parents to their favorite Clifton, where they stopped some time, and where Emmeline, Maria's second sister was united to Mr. King, to whom she had been for some time engaged.

From Clifton, Mr. and Mrs. Edgeworth

proceeded to Paris, where, furnished with introductions by Monsieur Pictét, they soon found themselves in a highly intellectual Parisian circle, containing amongst others, Dumont (with whom Maria for many subsequent years carried on an intimate correspondence in French), D'Alembert, and the aged Abbé Morellet. Here they met for the last time Mr. Edgeworth's ingenious and excellent mechanical friend, Mr. Watt, who made them known to many foreigners of celebrity.

The intimacy of these two philosophers had been of long standing; so far back as 1768, Dr. Small had made honorable mention of Mr. Edgeworth, in writing to Mr. Watt. "He is a gentlemen of fortune, young, mechanical, and *indefatigable*; he has taken a resolution of moving land and water carriages by steam, he seems to be in a fair way of knowing whatever can be known on such subjects."* In the valuable work from which this extract is taken, we find the clear mind of Mr. Edgeworth, with extraordinary prophetic sagacity, cheering his friend with a prediction which in 1858 it is curious and interesting to read. Mr. Watt had in 1786 constructed a steam carriage of "some size," and tells Mr. Boulton that he was "resolved to try if God would work a miracle in favor of these carriages," confessing at the same time that he had "small hope of their ever becoming useful, and suspected that the age of miracles was past." Not so hopelessly did Mr. Edgeworth view the matter—"I have always thought," he writes to Mr. Watt, "*that steam would become the universal lord, and that we should in time scorn post horses, an iron railroad would be a cheaper thing than a railroad on the common construction.*"†

The regard, which was heightened by congeniality of taste, continued undiminished by years. "I am glad, my dear Sir," says Mr. Edgeworth in one of his letters, "that the scheme of an iron tunnel came into my head, since it has been the cause of my being gratified by your kind attentions; at the close of a long life it is delightful to find that distance of time and place has not erased us from the remembrance of those with whom we were

associated in early life."** Mr. Watt died in 1819, a fine statue of him by Chantrey, was placed in Westminster Abbey.

Miss Edgeworth's society was much sought after in France, where the brilliancy of her wit, and her *gaieté de cœur* were universally admired. Her hand was asked by a Swedish *savant* of high character, but she could not think of expatriating herself from her country. "Besides," she used playfully to assure her father, "you know that I can never marry—*Car! Je suis femme de la Littérature!*"

So agreeable was his Parisian *séjour*, that Mr. Edgeworth had almost decided on remaining in France for two years, and fetching the rest of his family from Ireland; circumstances however occurred which obliged him to alter his mind. Although not mixing with political society, the name of *Edgeworth* was sufficient to awaken suspicion, and the misrepresentation that he was brother of the amiable Abbé, caused an order to be sent him through the police to leave Paris in four and twenty hours; by the active exertions of powerful friends there, however, and of the English ambassador, Lord Whitworth, this very disagreeable business was arranged, its disagreeability was more than compensated, by the warm regard and the active kindness it was the means of calling into play towards himself and his family.

He had been in treaty for a charming residence near the *Jardins de Luxembourg*, but he quickly broke it off, feeling confident, that the *agréments* of brilliant society, and even the high esteem in which he and his were held, could never compensate for the anxiety and mistrust, which he must feel under a government where the hateful system of *espionage* led to such injustice. They therefore immediately left for England; but the friendships formed with French and Swiss *savans* were permanent. Maria kept alive their original warmth and freshness by uninterrupted correspondence. Their return was most happily timed, the declaration of war with Great Britain, following so quickly that they would probably have had the misery of being among the *détenus*, as Mr. Edgeworth's son Lovell was for eleven years.

* Origin and progress of the mechanical inventions of James Watt, etc., by James P. Muirhead, Esq. vol. 1. p. 29.

† Origin and progress of the mechanical inventions of James Watt, etc., by James P. Muirhead, Esq. vol. 1, p. 240.

** In the days of the magnificent "Britannia Bridge," the description contained in these letters, of Mr. Edgeworth's ingenious project of making a cast-iron tunnel across the ferry at Bangor, instead of a bridge, will be perused with interest. *Vide* Muirhead's life of James Watt, vol. 2. p. 321.

A cloud, which overcast the domestic circle with mournful frequency, apprehension for the health of a cherished member, now "loomed in the horizon." All the sisters were strongly attached to their brother Henry, but Miss Edgeworth was peculiarly so, as when a little boy he had been put under her especial care to train and teach; it was with the deepest sorrow they learned that symptoms had appeared of that disease—

"Most fatal of Pandora's train,
Consumption, silent cheater of the eye!"

Hearing from Edinburgh, where he was pursuing his medical studies under Dr. Gregory, an alarming account of his health, his father determined to return to Ireland by Scotland, and bring Henry home with him. The amiable disposition of this young man endeared him to all who knew him, and it was with no small gratification that his family heard Alison, Playfair, and Dugald Stewart speak of him as if he were their own son. Dr. Gregory hoped much from the milder climate of Ireland, and, after their arrival at home late in 1803, the amendment in his patient seemed to justify the hope.

Government having at length determined to make trial of the Telegraph, applied to Mr. Edgeworth, and he, released from the pressure of immediate anxiety on account of his son, once more turned his mind to his favorite plan, and with the assistance of his brother-in-law, Captain Beaufort,* who was then at home to recover of severe wounds, completed a line from Dublin to Galway, on which messages and answers were transmitted in eight minutes. But the alarm of the French invasion subsided, Mr. Edgeworth and his friend were diplomatically thanked for their gratuitous exertions, and their Telegraphs consigned to the care of the ordinary military establishments.

The next literary work, which (in 1803) appeared from Edgeworthstown, was the joint production of the pens of father and daughter. It was "*An Essay on Irish Bulls*," and was intended to show to the English public, under the semblance of a pretended attack, the eloquence and talent of the lower classes in Ireland. It fully accomplished its object; and whilst the amuse-

ment it had given was fresh in the mind of the reader, was followed by the "*Popular Tales*." They were warmly commended by Jeffrey's able pen, which by a few happy touches pointed out their distinctive and characteristic merits.

"The design of these tales is excellent, and their tendency so truly laudable as to make amends for many faults of execution. There is nothing new indeed in the idea of conveying instruction in the form of an amusing narrative; for from the days of Homer downwards, almost all the writers of fictitious history, have been thought to aim at the moral improvement of their readers. They seldom however condescend to the duties or incidents of ordinary character, or ordinary life; but are occupied entirely in adjusting the claims of nice honor, and heroic affection, or in describing the delicate perplexities and fantastic distresses of those who set vulgar sorrows at defiance. The lessons they were calculated to teach, were quite inapplicable, to say the least of them, to that great multitude who are neither high-born nor high-bred. It is for this great and most important class of society that the volumes before us have been written. And their object is to interest, amuse, and instruct them, by stories founded on the incidents of common life, and developed by the agency of ordinary characters; to impress upon their minds the inestimable value and substantial dignity of industry, perseverance, prudence, good humor, and all that train of vulgar and homely virtues, that have hitherto made the happiness of the world, without obtaining any great share of its admiration."

Mr. Edgeworth had one day observed, in family conversation, that Maria could not deceive him as to authorship, for that he would at once know her style. Her father being a good deal from home, during the superintendence of the Telegraph, she took advantage of his absence to write "*The Modern Griselda*." It was printed in 1805, with a title page omitting the names of both author and publisher, and a copy was forwarded to her. It laid quietly on the table in the library, the general family sitting room. Mr. Edgeworth's quick eye soon perceived it, he took it up, glanced at the opening, and laid down the book with no further remark than a contemptuous "Pooh!" But Mrs. Mary Sneyd, (sister to Mrs. Elizabeth Edgeworth,) who continued to live with and add to the happiness of the family, perseveringly threw the neglected *Griselda* in his way. After some days he said, "This work haunts me, I

* Afterwards Admiral Sir Francis Beaufort, K.C.B., who closed, in the winter of 1857, a long life, spent in the service of his country; first in the Navy, and then for twenty-six years as Hydrographer to the Admiralty.

must read it to lay the spirit." The first page or two did not please, gradually some interest was awakened, and he every now and then exclaimed "very witty," "exceedingly good!" After going through a few chapters he said, "Maria, my dear, I do wish you had written this clever little tale!" at last, he started up, and taking her hand said, "You *did* write it! look me in the face and say you did not, if you can!" She could not; the secret was out, all parties were pleased, especially her father. And very few of her stories have had more success, at least amongst those who can appreciate wit and elegance.

Encouraged by the reception of her previous works, Miss Edgeworth, in the year 1806, gave to the world her second novel "*Leonora*:" one of the most polished and yet least popular of her productions. Its merits and defects were clearly seen, and its fate with curious accuracy predicted by her father's experienced judgment. "Your critic, partner, father, friend," he writes from Collon, "has finished your '*Leonora*,' it has no story to interest the curiosity, no comic to make the reader laugh, no tragic to make him cry, but it rests on nature, truth, sound morality, and religion, and, if you polish it, will sparkle in the regions of moral fashion." With this opinion, the verdict of the "Edinburgh" jury nearly coincided: "Miss Edgeworth always writes with good intentions, but this is not amongst her best doings. The story is neither very probable nor very interesting, most of the characters are rather sketches than finished portraits, and there is a want both of persons and of incidents, which produces a degree of languor not to have been expected in so short a work of so animated a writer."

Whilst the health of Henry Edgeworth seemed to revive, that of her sister Charlotte unexpectedly gave way. So blooming had she been, when they were on the continent, that she had been described by one celebrated foreigner as "*fraiche comme un rose, et avec des yeux pleins d'intelligence*;" by another, who deeply admired her,—the well known Camille Jourdan,—the purity of her character and countenance were exactly described in his passionate exclamation to her father, "*Elle a l'air si viergnaëe*."

In the autumn of 1816, pulmonary symptoms appeared, and in April, 1817, she was carried off by rapid decline. She had numbered but four and twenty years, but even in

that short period, her peculiarly engaging disposition had made her the fondly loved, the cherished favorite, the deeply mourned—of all. Her death gave a fatal shock to the fragile health of Henry. In vain he exerted himself to prepare for his intended profession. He went to London, where he took his degree; and probably overtaking his strength, was obliged to sail for Maderia. A slight amendment once more flattered his family with fallacious hopes of his recovery, but he soon lost ground again, and returning to England, expired at Clifton, two years after the death of his lamented sister.

After this sad event, three or four years were quietly passed at home, which were usually employed by Miss Edgeworth in writing, but now and then varied by visits to the delightful houses of her aunt Ruxton or Dr. Beaufort. Her own hospitable and agreeable home was also visited by numerous friends, and pleasant intercourse kept up with the gentry of the country, with whom her animated manners and varied conversation made her a general favorite. Her father was, meanwhile, much and fatiguingly engaged, in prosecuting experiments on wheel carriages; and then, in the examination of bogs, and the best mode of drainage for them. He now also invented a plan for constructing a spire for the church of Edgeworthstown, to be fitted together, and then raised by machinery to its place. This was executed in a perfect manner, in August, 1811, in presence of a large number of friends, assembled to witness its erection and placing on the steeple, where it steadily stands at this very day. His favorite relaxation in the evening was listening to Maria's reading aloud, which she did imitatively. In this way her manuscripts were heard by him, and criticised as she went along.

The first set of "*Fashionable Tales*" came out in 1809. They were written with great spirit, and showed accurate knowledge of the varieties of human character, the oddities of which were quickly apparent to her keen perception, but never pointed out satirically; her wit was free from sarcasm or bitterness. The second set of these tales, which followed in 1812, fully kept up to the character of the first, and none of her works have continued to hold a higher place in popular estimation.

Towards the end of 1812, Mr. and Mrs. Edgeworth, with Maria, went to visit some of their English friends, and spent the spring of

the following year in London, where their society was highly appreciated. During the "season," they became acquainted with Sir Samuel Romilly, Sir James McIntosh, and other literary and political lights of the period, together with many persons of high rank. These remained ever after, fast friends; and assisted, by their interest, in furthering her brothers as they entered into life, one of the highest objects of her generous and disinterested mind.

Amongst the intellectual stars to whom they were introduced, was Lord Byron, then in the zenith of fame and fashion. To this meeting he alludes subsequently, in a letter highly characteristic of the writer.

"I have been reading the life, by himself and daughter, of Mr. R. L. Edgeworth, the father of *the* Miss Edgeworth; it is altogether, a great name. In 1813, I recollect to have met them in the fashionable world of London (of which I then formed an item, a fraction, the segment of a circle, the unit of a million, the nothing of a something!) in the assemblies of the hour; and at a breakfast of Sir H. and Lady Davy's, to which I was invited for the nonce. I had been the lion of 1812, Miss E. and Madame de Staël (with the 'Cossack' towards the end of 1813) were the exhibitions of the succeeding year. * * * * * Everybody cared more about her: she was a nice little unassuming 'Jeannie Deans-looking body' (as we Scotch say), and if not handsome, certainly not ill-looking; her conversation was as quiet as herself, one would never have guessed she could write her name. * * * * * To turn from them to their works, I admire them, but they excite no feeling, and leave no love, except for some Irish steward or postillion. However, the impression of intellect and prudence is profound, and may be useful."

In 1814 appeared "*Early Lessons*," and a larger though not more useful work, about which we must add a few introductory lines. Many years previously, to beguile the weary hours of illness to Mrs. Elizabeth Edgeworth, her husband used every evening to improvise portions of a tale called "*The History of the Freeman Family*." His young people who always assembled in his room to hear it, declaring that it was a pity it should be lost. Maria noted it from memory, and from the plan, slightly altered, formed the groundwork of "*Patronage*," which was published in 1814. The character of Lord Oldborough only (perhaps the finest ever drawn by her pen), being an addition of her own. "This work," says

an acute reviewer, "was never so fortunate as its predecessors in gaining applause. It gives evidence of as much talent as any that went before it: the difficulty seems to be in the wide range of its subject." The letters of the young Percys, giving the particulars of their professional success, were thought rather heavy, and a *legal* critic fell foul of the legal portions, and pronounced her to be "completely in the dark as to the proper province of a barrister." It was criticised by Mrs. Inchbald, author of "*The Simple Story*," with a frankness which might have offended one who could less well afford to spare a little praise; but her remarks, even her "heartily dislike to Erasmus Percy, as nauseous as his medicines!" were received by Miss Edgeworth with the utmost good temper, and drew from her this cordial reply.

"The best thanks to you, my dear Mrs. Inchbald, for your letter, you would be glad to see how much pleasure that letter gave this whole family; father, mother, brother, sister, author! When we compared it with one from Walter Scott, received nearly at the same time, and read both letters again, upon the whole, the preference was given by the whole breakfast-table (a full jury) to Mrs. Inchbald's. Now, I must assure you that as to quantity of praise, I believe Scott far exceeded you. *We particularly like the frankness with which you find fault, and say 'such a stale trick was unworthy of us.'* Your letters, like your books, are so original, so interesting, and give me so much the idea of truth and reality, that I am more and more desirous to be personally acquainted with you; and in this wish I am most heartily joined by Mrs. E., a person whom, though you have not seen her in print, you would, I will answer for it, like better than any one author or authoress of your acquaintance, as I do, my father only excepted."

Of Miss Edgeworth's readiness to bestow that commendation which she little exacted, we had ourselves an opportunity of judging. Miss Mitford, the late kind-hearted and popular author of "*Our Village*," etc., desirous of obtaining for a young friend the autograph of Maria Edgeworth, applied to us to make known this desire, through a mutual friend. She at once complied, both by manner and matter, making compliance doubly obliging. The substance of what she wrote was pretty nearly as follows:

"Although I am no 'literary fetcher and carrier of bags,' I cannot refrain from expressing the pleasure which I felt on the first

perusal of Miss Mitford's admirable tragedy of *Rienzi*, the next, the very next, in merit to those of the immortal Shakspeare."

"My friend will, I fear, after all, be disappointed of her autograph," was Miss Mitford's very natural observation, "for as to my parting with *that* specimen of penmanship it would be impossible!"

Early in the spring of 1814, whilst his appearance seemed yet to give promise of many healthy years, Mr. Edgeworth was seized with an alarming illness. This was increased by anxiety about his son Lovell, now in the twelfth year of his captivity on *parole*. But his liberation was at hand. On the glorious return of the allied sovereigns into Paris the "prisoners were set free," and Mr. L. Edgeworth hearing in London of his father's illness at once set off for home. He arrived at night, and the invalid who was sinking to rest, after a day of exhausting pain, seemed reinvigorated by the surprise and delight of once more embracing his son, of whom he might have said, with grateful reverence, "He was lost and is found!"

Mr. Edgeworth in some measure recovered this illness, but it had fatally undermined his strength; feeling this, he, with his wife, Maria, and some of the younger part of the family, went in the winter of 1815 to Dublin, for the advantage of medical advice from his friend, the late Sir Philip Crampton. Here, under the pressure of much illness, he, in the successive springs of 1815-16, carried out, with the assistance of his son William, an extensive set of public experiments on wheel carriages, which he had promised to try for the Royal Dublin Society. He returned home much reduced, and suffering severely from pain and weakness. He amused himself by superintending the publication of a volume of *dramas* which Miss Edgeworth now brought out, but his sight gradually failed; but by the kindness of his wife, his ever-ready secretary, he said that without trouble to himself or apparently to her, he could still convey his thoughts to friends, with whom, nearly to the last, he corresponded. He submitted with touching gentleness to become dependent *willingly*, as he used to declare, on the affection of his family. He earnestly longed to see the completion of "*Harrington*" and "*Ormond*," two tales which Miss Edgeworth had begun to write. The desire to gratify him, always the strongest stimulus, enabled

her to make an exertion on which she afterwards looked back with astonishment, and even in her harrassed and excited state of feeling to finish the last of her works with which he was to be associated. Every evening she read to him what she had written in the morning, whilst he listened with inconceivable interest "pursuing," she says, "the labor of correction with an acuteness and perseverance of which I cannot bear to think."

He had always prayed that his intellectual faculties might be spared to the last. The petition was granted, and the latest efforts of his strength were speaking parting words of counsel and consolation to each of his afflicted family. He expired on the 15th of June, 1817. At the hazard of being tedious we will offer to our readers an extract from a letter written two days afterwards.

"My dear —, Your goddaughter has told you all the sad particulars better than any one could, as she never left him for a moment,—but did she say enough of my mother's tender care, and of the comfort she gave him to the last moment, or of the looks of affection and gratitude he gave her, even when life seemed to be expiring? His head on her bosom, where she had supported him for fourteen hours, he gently breathed his last. When all was quite over, she was carried fainting to her room by our dear old housekeeper, and put to bed. . . . Her conduct now is still more admirable. . . .

"Maria supports herself better than we thought possible. Our comfort is talking of him, his merit, his virtues, his kindness:—he cannot live too much in our hearts."

The calmness of Maria had indeed appeared supernatural, inconsistent as every one knew it to be with her agonized state of feeling. It seemed to be a continuance of that state of undemonstrating endurance to which she had of latter weeks wrought up her mind, that she might avoid giving added pain to him who had been the dearest object of her life. She had not yet shed one tear, when her aunt Ruxton carried her from that house of sorrow to Black Castle, where Dr. Beaufort's family had gone, kindly and anxiously to meet her. The tender kindness of Mrs. Beaufort, which was but deepened and meliorated by advancing years, seemed to make her intuitively understand the intenseness of this dangerously-suppressed anguish. Throwing her arms around the silent sufferer, she softly whispered "My poor Maria!" This simple expression of sincere and intelligent

sympathy, opened the sluices of sorrow, and long continued weeping brought relief to the bursting heart.

Long and acutely did Miss Edgeworth continue to feel this deepest affliction of her life. On Mrs. S. C. Hall asking her many years afterwards what length of time she took to write a novel, she replied that she had generally taken ample time. She had written "*Harrington*" and "*Ormond*" in three months, "but that," she added "was at my father's command. I never heard of the book, nor could I think of it after his death, till my sister two years afterwards read it to me, then it was quite forgotten." Even by the cold world of criticism, unaware of the circumstances under which these tales were written, and indifferent to them had it been aware—they were received with approbation. The plot of "*Harrington*" was formed, in consequence of a letter from an American Jewess, complaining that her nation had been treated with illiberality in some of Miss Edgeworth's writings. Anxious that her reparation should be as public as her offence, she adopted this agreeable method of doing justice.

When Miss Edgeworth's spirits had in some measure revived, she accepted invitations from several of the friends whom she had made in London, and taking with her, her sisters Honora and Fanny, paid many delightful visits at the country seats of these friends, enjoying the society of the *élite* of the land. She was particularly happy at Bowood, where, amongst other celebrities, she met for the first time the poet Moore. She admired his brilliancy in conversation, and the feeling and expression with which he sung the Irish melodies, but on the whole, she was not much fascinated as most people seemed to be, by his sociable and genial qualities.

From this agreeable tour she returned home for some months, after which, anxious to give Mrs. Edgeworth's two eldest daughters the advantage of mixing in French society, early in the spring of 1820, she once more went to Paris. From all the friends remaining there, whom she had formally known, she received the warmest welcome, and enlarged her acquaintance with a number of remarkable people. Her letters home were highly entertaining, written with all the life and spirit of her conversation. In the hurry and excitement of Parisian life, she contrived often to write long and most interesting ac-

counts of the distinguished people she met, to Dr. Beaufort, whom she knew to be unwell and in depressed spirits; her vivid style carried the reader along with her description, and the arrival of her letters was always hailed with joy. After some months of much enjoyment, the travellers went on to Switzerland, where they visited the Pictêts, and other Genevese friends, and in company with Dumont, made excursions to Chamouny, Interlachen, and other lovely places in that lovely country.

Once more at Edgeworthstown, Maria prepared in 1821 for publication, "*Rosamond*," the first part of the "*Sequel to Early Lessons*;" a delightful little work, which has the uncommon qualities of being equally pleasing to parent and child. This year was enjoyed at home; but was saddened in the spring, by the death of her excellent and sincerely loved friend, Dr. Beaufort, a deep sorrow to the whole family.

Having taken a year's rest, the same trio in 1822, went over to London, where they entered largely into society, with the principal *savans*, literary and scientific, of the day. At the *recherché* breakfasts of Rogers, they met, the *élite* of the social world. Their circle of acquaintance was now extended much too widely to admit of an attempt to particularize its members, we must however just mention the name of Mr. Ricardo, of financial renown with whom, as well as his charming family, they formed a lasting friendship. On their way home they revisited Bowood, and other country seats of friends of "high degree."

Miss Edgeworth admired with all the enthusiasm of her nature, the talent, and fertile imagination of Sir Walter Scott. They had been for some years correspondents, but met for the first time at Edinburgh, in 1823, where Maria with two of her sisters was making a tour through "Bonnie Scotland." Writing to their mutual friend, Joanna Bailie, he tells her that the Irish lioness not only answered, but exceeded the expectation he had formed. "I am particularly pleased with the *naïveté*, and good humored ardor of mind, which she unites with such formidable powers of acute observation. In external appearance she is quite the fairy of our nursery tale, the *Whippity Stourie*, if you remember such a sprite, who came flying in through the window, to work all sorts of marvels. I will never believe but that she has a wand in her pocket,

and pulls it out, to conjure a little, before she begins those very striking pictures of manners. I hope soon to have her at Abbotsford." That hope was realized.

"The next month—August 1823," Lockhart tells us, "was one of the happiest in Scott's life. Never did I see a brighter day at Abbotsford, than that on which Miss Edgeworth first arrived there; never can I forget his look and accent, when she was received by him at his archway, and exclaimed, 'Every thing about you is exactly what one ought to have had wit enough to dream.' Day after day, so long as she could remain, her host had always some new plan of gaiety. He must needs show her, not Newark only, but all the upper scenery of the Yarrow, where 'fair hangs the apple frae the rock;' and often, they sang, and he recited, until it was time to go home, beneath the softest of harvest moons. Thus a fortnight was passed, and the vision closed."

This visit was returned two years afterwards, by Sir Walter, his son and daughters, and his son-in-law, Mr. Lockhart, at Edgeworthstown, where he saw "neither hovels, nor naked peasantry, but snug cottages and smiling faces," and where he could best judge of his friend, in the midst of her large and happy "home circle." The house was each day filled with a succession of pleasant guests; and every night, after supper, to gratify Scott, who initiated them into this custom of his country in the olden times, they rose and forming themselves into a ring, holding hands all round, all who could join, sang to the air of "Scots wha hae," pretty nearly the following words:—

"Lift, lift the flagon high!
Drain, drain the chalice dry!
Will ye leave it?—fie! fie!
Drink! and fill again."

Miss Edgeworth, with one of her sisters, and her brother William, joined Sir Walter's party for the rest of their Irish tour. And their reception was such as to draw from Lockhart's pen, an *original* compliment to the proverbial hospitality of Erin.

"Most of the houses seemed to have been constructed on the principle of the Peri Bonou's tent; they seemed all to have room, not only for the lion and lioness, and their respective tails, but for all in the neighborhood who could be held worthy to inspect them at feeding time."

It was long before Miss Edgeworth could bring herself to use for the public, that pen

which from first to last, had been we may say guided by her "father, partner, critic, friend." Urged however on all sides, to exert those talents which had already been productive of so much good, stimulated perhaps by the conviction, that so that cherished parent would have desired it to be, she made a vigorous effort at self-command, and in 1825, she gave to the world one of her best works, "*Harry and Lucy, concluded.*" Here we have all her former clearness in explaining, her accustomed appositeness in applying, and her wonted animation in describing. The distinction of character too, between the grave philosophic brother and his little playful, affectionate, clever sister, is admirably done. In this year also appeared her "*Sequel to Frank*," which, like her "*Rosamond*," is equally interesting to parent and child. Nowhere do we meet with happier strokes from her pen. "Her touch though light and rapid," says one of her reviewers, "went to the quick."

Being requested by the editor of "*The Christmas Box*," an annual which came out in the year 1828, for a literary contribution, she wrote for him the nice little tale called "*Garry Owen, or the Snow Woman*," which, notwithstanding her working in it a little upon the plan of her own "*Blind Kate*," was pronounced in the *Noctes Ambrosianae* "interesting enough to float a heavy volume."

In 1829 another dear member was lost to the domestic circle. William, the young engineer, who had been so often associated with his father in mechanical experiments. His illness was rapid and its close unexpectedly sudden. His brother Francis who was particularly attached to him, was then at the Charterhouse, London; a few lines were written to him in pencil by his dying brother, which, steeped in milk, were immediately enclosed, along with an entreaty to hasten to Edgeworthstown. His journey was made with as much expedition as was possible in those days of comparatively slow travelling. But all the speed was vain, life ebbed more quickly still! When he arrived, the much loved William was no more.

Since that period, he has himself, as well as his brother Lovell, been summoned hence; Miss Edgeworth lived to deplore four dear brothers, so much her junior;—all laid in that melancholy vault.

From the time of her father's death, her

works had been exclusively for the young; but in 1834 "*Helen*," a novel from her pen, was joyfully welcomed by the reading world. For interest of plot, strength in drawing of character, and distinctness in bringing out its moral, it is perhaps one of her happiest productions; though it must be confessed that the hero is *rather* flat, and we question whether the heroine be quite so interesting as is a certain faulty, fascinating Lady Cecilia. The last word of the novel names the virtue to be taught throughout. To show the dignity and "sustaining power of *truth*," the humiliation in departing from, the happiness in returning to, this lofty virtue, is the object of this her most "moral tale."

Lady Cecilia Davenant, beautiful, engaging, and affectionate, marries the noble minded General Clarendon, (in our opinion, the hero of the story,) whose peculiar idiosyncrasy is a prejudice against uniting himself to a woman who had been previously engaged. Failing in strength of mind to confess that in the first flush of youthful vanity, she had coquetted to a considerable degree with Henry D'Aubigné, Cecilia, who had never learned to reverence *truth*, and who, though she would have shrunk from a deliberate falsehood, would too often "rose-color a representation," to give pleasure or avoid inflicting pain, prevails on her friend Helen Stanley, to pass as her own, a packet of letters to this former admirer, which most unluckily had come under the General's notice. The conflict between the agonizing consciousness of acting in a manner unworthy of the wife of her idolized husband, and the cowardice which held her back from confessing the truth, is powerfully worked up; and the character of her mother Lady Davenant, a sort of female Lord Oldborough, is beautifully drawn. Less attractive, but how true to nature, is the following description of the General's sister.

"Of a strong body herself, capable of great resistance, and powerful reaction under disappointment or grief, she could ill make allowance for feebler health and spirits, perhaps feebler character; for great misfortunes, she had great sympathy, but she could not enter into the detail of lesser sorrows, especially any of the sentimental kind. . . . Many a truth would have come mended from Miss Clarendon's tongue, if it had been uttered in a soft tone, and if she had paid a little more attention to times and seasons."

Who does not know a Miss Clarendon?

Gladly would we give some more extracts from these interesting volumes, but we must hasten towards the close of our sketch of its author.

Though now far advanced in the vale of years, the following description of a "visit to Edgeworthstown," from the pen of the amiable *friend*, William Howitt, shows that "her eye was not dim, nor her natural strength abated."

"Having got such a luncheon as the inn afforded, I walked up to the hall. Here I found a very cordial reception. In the true spirit of Irish hospitality Mrs. Edgeworth was anxious that I should at once transfer myself from the village inn to her ample mansion, where there was as much abundance as in any English house of the same pretensions. I found the ladies sitting in a large and handsome library, busy writing letters. These ladies consisted of Mrs. Edgeworth, Miss E., and Mrs. Francis E., the wife of the 'Frank' of Miss Edgeworth's tale. My first impression of Miss Edgeworth was surprise at her apparent age, though she must in fact stand now nearly, if not quite, at the head of British authors in point of years. In person she is small, and at first had an air of reserve, but this, in a few minutes, quite vanished, and with it at least the impression of a score of years in appearance. One would expect from her writings a certain staidness and sense of propriety. All the propriety is there, but the gravity is soon lighted up with the most affable humor, and a genuine love of joke and lively conversation. When I entered the two other ladies were writing at the library table, Miss Edgeworth at a small table near the fire.

"The library is a large room supported by a row of pillars, so as to give views into the grounds on two sides. We were soon engaged in animated conversation on many literary topics and persons, and Miss E. handed me the last new novel of Miss Bremer, which had been forwarded by me from the author, requesting me to place a written translation under Miss Bremer's autograph inscription of the copy to herself. To do this she put into my hand the silver pen which had been presented to her by Sir Walter Scott.

"She then volunteered to show me the garden and grounds; and this remarkable woman, speedily enveloped in bonnet and shawl, led the way with all the lightness and activity of youth. . . . Not far from the house, near the footpath, and beneath the trees, I observed an urn placed on a pedestal, and inscribed—'TO HONORA, 1780.'

"We then went into the garden. Miss E. said that she had been setting out some ge-

raniums that day, though so late as September. In our round we came to a little secluded garden, which Mrs. Francis told me they had laid out for her and her children, and where they had built a little summer-house of heath.

"On our return to the house we were joined by Mr. Francis Edgeworth, and at dinner, and during the evening we had a deal of talk of poetry and poets. The ladies, as well as Mr. E., expressed their great obligation to Mrs. Howitt, for the introduction of Miss Bremer's works, and of a taste for the northern languages and literature in general. They had fallen into the error which has been very common, of supposing that William and Mary Howitt were brother and sister instead of husband and wife. . . . About ten o'clock, a stately old servant conducted me to the inn, with a lantern, and thus ended my short but agreeable visit to Miss Edgeworth."

"*Orlando*," a tale for "*The Little Library*," of the Messrs. Chambers, was her last work. When asked subsequently whether she would not again write, she used playfully to say, she was "mending her pen," which led one or two of her friends to conjecture that she might be engaged in something intended for posthumous publication, but since her death, nothing bearing her name has been given to the world.

The last "notice" of her which we shall present to our readers, appeared in the *Art Journal*, of 1849; it describes a visit paid her by Mrs. S. C. Hall, who, as well as being her warm admirer, was her personal friend. A portion of this "description," had previously formed matter for some of the most agreeable pages of Mrs. Hall's most agreeable "sketches."

"The demesne of Edgeworthstown, is judiciously and abundantly planted, and the dwelling house large and commodious. We drove up the avenue at evening; it was cheering to see lights sparkle through the windows, and to feel the cold nose of the house-dog thrust into our hands, as an earnest of welcome; it was pleasant to receive the warm greeting of Mrs. Edgeworth, and it was a high privilege to meet Miss Edgeworth in the library, the very room in which had been written the immortal works, that redeemed a character for Ireland, and have so largely promoted the truest welfare of the human kind. We had not seen her for some years, except for a few brief moments, and rejoiced to find her in nothing changed; her voice as light and

happy, and as full of gentle mirth, her eyes as bright and truthful, and her countenance as full of goodness and loving kindness, as they had ever been.

"The library at Edgeworthstown, is not the reserved and solitary room that libraries are in general. It is large, spacious, and lofty; well-stored with books, and embellished with those most valuable of all classes of prints, the suggestive. It is also picturesque, having been added to, so as to increase its breadth; the addition is supported by square pillars, and the beautiful lawn seen through the windows, embellished and varied by clumps of trees judiciously planted, imparts much cheerfulness to the exterior. An oblong table in the centre, is the rallying point for the family, who group around it, reading, writing, or working, while Miss E., only anxious on one point, that all the house should do exactly as they like, without reference to her, sits quietly and abstractedly in her own peculiar corner, on the sofa; her desk, upon which lies Sir W. Scott's pen, given to her by him when in Ireland, placed before her upon a quaint little table, as unassuming as possible. In that same corner, and upon that table, she has written nearly all that has delighted the world, the novels that moved Sir Walter Scott 'to do for Scotland, what Miss E. had done for Ireland,' the works in which she had brought the elevated sensibilities and sound morality of maturer life, to a level with the comprehension of childhood, and rendered knowledge and virtue, care and order, the playthings of the nursery.

"I thought myself peculiarly good to be up and about at half-past seven in the morning, but, early as it was, Miss Edgeworth had preceded me, and a table heaped with early roses, upon which the dew was still moist, and a pair of gloves too small for any hand but hers, told who was the early florist. She was passionately fond of flowers, she liked to grow them and to give them; one of the most loved and cherished of my garden's rose bushes, is a gift from Miss Edgeworth. There was a rose or a bouquet of her arranging, always by each plate on the breakfast table, and if she saw my bouquet faded, she was sure to tap at my door with a fresh one before dinner. And this, from Maria Edgeworth, then between seventy and eighty, to me! These small attentions enter the heart and remain there, when great services and great talents are regarded perhaps like great mountains, distant, cold, and ungenial.

"Such of the servants as were Protestants joined in family worship, and heard a portion of the Scriptures read, hallowing the commencement of the day. Then when breakfast was ended, the circle met together again,

in that pleasant room, and daily plans were formed for rides and drives; the progress of education, or the loan fund, was discussed; the various interests of the tenants, or the poor, were considered, so that relief was granted as soon as the want was known.

"Her extensive correspondence was not confined to any *clique* or country. She seemed to have known everybody worth knowing, and to have taken pleasure all her life in writing letters, when, as she observed, 'she had any thing to say.' She never wearied of talking of Sir Walter Scott, and she seldom spoke of him, without her eyes filling with tears. 'You London people,' she said, 'never saw Scott as he really was, his own house and country drew him out; he was made up of thought and feeling, illumined by a wonderful memory, and possessed of the power of adapting and illustrating every thing with anecdote. Every heart and face grew bright in the brightness of Scott.' Miss Edgeworth suffered bitterly during Scott's illness, she talked much and sorrowfully, both about him and Captain Basil Hall. 'People will overtask themselves,' she said, 'in the very teeth of example; even Sir Walter knew he was destroying himself, he told me that four hours a day at works of imagination was enough, adding that he had wrought fourteen.' 'One thing I must tell you,' she exclaimed, after we had been turning over several of Sir Walter Scott's letters, 'one thing I must tell you, Sir Walter Scott was almost the only literary man who never tired me. Sir James Mackintosh was a clever talker, but he tired me very much, although my sister once repeated to me seventeen things he had said, worth remembering, one morning at breakfast.' I could not help thinking that the task of remembering seventeen clever things, must have been great fatigue.

"Miss Edgeworth's collection of autograph letters was by far the most interesting I ever saw, far more so than any published during the present century. She used to bring me box after box filled with the correspondence of all the remarkable people 'of her time,' a period then of more than fifty years. Sometimes, she would pick me out the most interesting, and then leave the collection to 'amuse me.' It was not the mere chit-chat of the period, but the opinions of clever people, given to clever people. I felt it a great privilege and advantage to read those letters. Some few were from the leading men of her father's time, to him. Sir Walter's were, I had almost said, without number. The correspondence of many years with Joanna Baillie, Miss Seward, Mrs. Hofland, Mrs. Grant; packets of foreign letters, and multi-

tudes from America, which Miss Edgeworth said was 'a letter-writing country.'

"Miss Pakenham, afterwards Duchess of Wellington, was so nearly connected with the Edgeworth family, that she consulted Mr. Edgeworth frequently during her husband's absence, on the education of her sons. Miss E. spoke of her with great affection and tenderness, and perhaps there is nothing more touching in the whole history of woman's love, than that noble lady's entreaty, during her last illness, to be carried into the room in which the gifts of so many nations to 'the Duke' are deposited. 'Never,' said Miss Edgeworth, 'had she looked so lovely to me as she did on the day I saw her there. She had the palest blush on her fair cheek, and pointing round, she said, "These are tributes paid to *him* by all the world, not gained by trickery or fraud." I have never looked round the room of royal presents, that beautiful, though they cannot add to the attraction of Apsley House, without conjuring up the fragile lady upon the sofa, where she breathed her last, surrounded by tributes to her husband's greatness.'

"Mrs. Barbauld's letters were easy and kind, and I said so to Miss Edgeworth after reading them. She agreed with me, laughing while she added, 'Yes, she was very kind, and at the same time not a little pragmatic and punctilious.'

"She was not reserved in speaking of her literary labors, but she never volunteered speaking of them or of herself. She seemed never to be in *her own head*, much less in *her own heart*. She loved herself, thought of herself, cared for herself, infinitely less than she did for those around her. Naturally anxious to know every thing connected with her habits of thought and writing, I often reverted to her books, which she said I remembered a great deal better than she did herself. When she saw that I really enjoyed talking about them, she spoke of them with her usual frankness, while seeing the little weaknesses of others clearly and truly, she avoided dwelling upon them, and could not bear to inflict pain. 'People,' she said, 'see matters so differently, that the very thing I should be most proud of, makes others blush with shame. Wedgewood carried the "hod" of mortar in his youth, but his family objected to that fact being mentioned in "*Harry and Lucy*."

"During her last visit to London, I still thought her unchanged. Like Scott, she was not seen to the same advantage as amid the home circle at Edgeworthstown. Our last meeting was at her beloved sister's, Mrs. Wilson, in North Audley Street: she was

there the centre of attraction amongst those of highest standing in literature. The hot room and the presentations wearied her, and so her anxious sister thought: but she, again like Scott, was the gentlest of lions, and suffered to admiration! When I was going, she pressed my hand, and whispered, 'We will make up for this at Edgeworthstown.' I certainly did not think I should see her no more in this world.

"I have imagined the half hour of her illness in that now desolate monument of so much that was good and great; a brother and sister—the brother, nearly half a century younger than Maria Edgeworth—who were there when we were at Edgeworthstown, had been called away before her. She had written (dictated) a note to Dr. Marsh,* complaining of not being so well as usual, yet had felt little alarm. In less than half an hour after this letter was written, Mrs. Edgeworth went into Miss Edgeworth's bedroom—the little room that overlooked her flower garden, stood by her bedside, became alarmed, and passing her arm under her head, turned it on her shoulder, so as to raise her up. After the lapse of a few minutes, she felt neither motion nor breath; it was only the form of her long cherished and beloved friend that she pressed to her bosom! She died in her eighty-third year, it may be truly said, full of years and honors."

On the 22nd of May, 1849, she was laid in the vault in the churchyard of Edgeworthstown, where so many of her family sleep their long, last sleep.

In summing up Maria Edgeworth's character, the points which are most observable, are lofty principle, affection, and disinterestedness. Where she loved and trusted, her love and trust were perfect, as in the case of her father, and the present Mrs. Edgeworth; to her brothers and sisters her attachment had in

* Now Sir Henry Marsh.

it something of maternal tenderness, and, throughout her long life, she exerted for them that influence which her writings, character, and talent, had secured to her. She sympathized warmly in the pursuits and tastes of others, however widely they differed from hers, and free from the narrowing effects of vanity or pride, she made herself agreeable to those whose minds, and whose acquirements, were far inferior to her own.

In literature, she may be said almost to have struck out for herself a new course, and shown the possibility of making instruction at once clear and amusing to the young; and in those works which were designed for "*Children of Older Growth*," of uniting vivid interest with beautiful purity.

"Her extraordinary merit," says Sir James Mackintosh, "as a moralist, and a woman of genius, consists in her having selected a class of virtues far more difficult to treat as the subjects of fiction than others, and which had therefore been left by former writers, to her."

"Other arts and sciences," observes Jeffrey, "have their use, no doubt, but the great art is the art of living, and the chief science, the science of being happy. Miss Edgeworth is the great modern mistress in the school of true philosophy, and has eclipsed the fame of all her predecessors."

She lived long enough to see many followers in that line of juvenile literature, of which she was, if not the discoverer, at least the pioneer. She is now beyond the reach of earthly censure, above the reach of earthly praise, but whether we consider her character in a moral or intellectual point of view, we may well allow that she deserved the fame, which the grateful voices of thousands whom she has amused and instructed, have ascribed to the name of MARIA EDGEWORTH.

E. J. B.

AN OLD BACHELOR'S EPITAPH.—Among the many ancient tombstones in the "Pawtucket Cemetery," at Haverhill, Mass., is one from which the following inscription is copied:

"JOHN SWODDOCK,
Died February 13, 1707-8,
and in ye 76 year of his
age.

He lived honestly all his life,
Died aged and never had a wife."

THE readers of the "Life of Charlotte Brontë" will be glad to learn that the Rev. P. Brontë is still living at Haworth. The reverend gentleman is in his eighty-second year, and preaches once every Sunday. Mr. Nicholls (Charlotte's husband) resides with him as his curate. The servant Martha, who is often mentioned in the work, still lives at the parsonage, and is a comfort to her aged and venerated master.

From Household Words.
THE UNKNOWN PUBLIC.

Do the subscribers to this journal, the customers at the eminent publishing houses, the members of book-clubs and circulating libraries, and the purchasers and borrowers of newspapers and reviews, compose altogether the great bulk of the reading public of England? There was a time when, if anybody had put this question to me, I, for one, should certainly have answered, Yes.

I know better now. I know that the public just now mentioned, viewed as an audience for literature, is nothing more than a minority.

This discovery (which I venture to consider equally new and surprising) dawned upon me gradually. I made my first approaches towards it, in walking about London, more especially in the second and third rate neighborhoods. At such times, whenever I passed a small stationer's or small tobacconist's shop, I became conscious, mechanically as it were, of certain publications which invariably occupied the windows. These publications all appeared to be of the same small quarto size; they seemed to consist merely of a few unbound pages; each one of them had a picture on the upper half of the front leaf, and a quantity of small print on the under. I noticed just as much as this, for some time, and no more. None of the gentlemen who are so good as to guide my taste in literary matters, had ever directed my attention towards these mysterious publications. My favorite review is, as I firmly believe, at this very day, unconscious of their existence. My enterprising librarian who forces all sorts of books on my attention that I don't want to read, because he has bought whole editions of them at a great bargain, has never yet tried me with the limp unbound picture quarto of the small shops. Day after day, and week after week, the mysterious publications haunted my walks, go where I might; and, still, I was too inconceivably careless to stop and notice them in detail. I left London and travelled about England. The neglected publications followed me. There they were in every town, large or small. I saw them in fruit-shops, in oyster-shops, in lolly-pop shops. Villages even—picturesque, strong-smelling villages—were not free from them. Wherever the speculative daring of one man could open a shop, and the human appetites and necessi-

ties of his fellow mortals could keep it from shutting up again, there, as it appeared to me, the unbound picture quarto instantly entered, set itself up obtrusively in the window, and insisted on being looked at by everybody. "Buy me, borrow me, stare at me, steal me—do anything, O inattentive stranger, except contemptuously pass me by!"

Under this sort of compulsion, it was not long before I began to stop at shop-windows and look attentively at these all-pervading specimens of what was to me a new species of literary production. I made acquaintance with one of them among the deserts of West Cornwall, with another in a populous thoroughfare of Whitechapel, with a third in a dreary little lost town at the north of Scotland. I went into a lovely county of South Wales; the modest railway had not penetrated to it, but the audacious picture quarto had found it out. Who could resist this perpetual, this inevitable, this magnificently unlimited appeal to notice and patronage? From looking in at the windows of the shops, I got on to entering the shops themselves, to buying specimens of this locust-flight of small publications, to making strict examination of them from the first page to the last, and finally, to instituting inquiries about them in all sorts of well-informed quarters. The result—the astonishing result—has been the discovery of an unknown public; a public to be counted by millions; the mysterious, the unfathomable, the universal public of the penny-novel Journals.*

I have five of these journals now before me, represented by one sample copy, bought hap-hazard, of each. There are many more; but these five represent the successful and well-established members of the literary family. The eldest of them is a stout lad of fifteen years standing. The youngest is an infant of three months old. All five are sold at the same price of one penny; all five are published regularly once a week; all five contain about the same quantity of matter. The weekly circulation of the most successful of the five, is now publicly advertised (and, as I am informed, without exaggeration) at half a Million. Taking the other four as attaining altogether to a circulation of another half

* It may be as well to explain that I use this awkward compound word in order to mark the distinction between a penny journal and a penny newspaper. The "journal" is what I am now writing about. The "newspaper" is an entirely different subject, with which this article has no connection.

million (which is probably much under the right estimate) we have a sale of a Million weekly for five penny journals. Reckoning only three readers to each copy sold, the result *a public of three millions*—a public unknown to the literary world; unknown, as disciples, to the whole body of professed critics; unknown, as customers, at the great libraries and the great publishing houses; unknown as an audience, to the distinguished English writers of our own time. A reading public of three millions which lies right out of the pale of literary civilization, is a phenomenon worth examining—a mystery which the sharpest man among us may not find it easy to solve.

In the first place, who are the three million—the Unknown Public—as I have ventured to call them? The known reading public—the minority already referred to—are easily discovered and classified. There is the religious public, with booksellers and literature of its own, which includes reviews and newspapers as well as books. There is the public which reads for information, and devotes itself to Histories, Biographies, Essays, Treatises, Voyages and Travels. There is the public which reads for amusement, and patronizes the Circulating Libraries and the railway book-stalls. There is, lastly, the public which reads nothing but newspapers. We all know where to lay our hands on the people who represent these various classes. We see the books they like on their tables. We meet them out at dinner, and hear them talk of their favorite authors. We know, if we are at all conversant with literary matters, even the very districts of London in which certain classes of people live who are to be depended upon beforehand as the picked readers for certain kinds of books. But what do we know of the enormous outlawed majority—of the lost literary tribes—of the prodigious, the overwhelming three millions? Absolutely nothing.

I, myself—and I say it to my sorrow—have a very large circle of acquaintance. Ever since I undertook the interesting task of exploring the Unknown Public, I have been trying to discover among my dear friends and my bitter enemies, both alike on my visiting list, a subscriber to a penny novel-journal—and I have not yet succeeded in the attempt. I have heard theories started as to the probable existence of penny novel-journals in kitchen dressers, in the back parlors of Easy

Shaving Shops, in the greasy seclusion of the boxes at the small Chop Houses. But I have never yet met with any man, woman, or child who could answer the inquiry, “Do you subscribe to a penny journal?” plainly in the affirmative, and who could produce the periodical in question. I have learnt, years ago, to despair of ever meeting with a single woman, after a certain age, who has not had an offer of marriage. I have given up, long since, all idea of ever discovering a man who has himself seen a ghost, as distinguished from that other inevitable man who has had a bosom friend who has unquestionably seen one. These are two among many other aspirations of a wasted life which I have definitely given up. I have now to add one more to the number of my vanished illusions.

In the absence, therefore, of any positive information on the subject, it is only possible to pursue the investigation which occupies these pages by accepting such negative evidence as may help us to guess with more or less accuracy, at the social position, the habits, the tastes, and the average intelligence of the Unknown Public. Arguing carefully, by inference, we may hope in this matter, to arrive, by a circuitous road, at something like a safe, if not a satisfactory conclusion.

To begin with, it may be fairly assumed—seeing that the staple commodity of each one of the five journals before me, is composed of Stories—that the Unknown Public reads for its amusement more than for its information.

Judging by my own experience, I should be inclined to add, that the Unknown Public looks to quantity rather than quality in spending its penny a week on literature. In buying my five specimen copies at five different shops, I purposely approached the individual behind the counter, on each occasion, in the character of a member of the Unknown Public—say, Number Three Million and One—who wished to be guided in laying out a penny entirely by the recommendation of the shopkeeper himself. I expected, by this course of proceeding, to hear a little popular criticism, and to get at what the conditions of success might be in a branch of literature which was quite new to me. No such result however, occurred in any case. The dialogue between buyer and seller always took some such practical turn as this:

Number Three Million and One.—“I

want to take in one of the penny journals. Which do you recommend?"

Enterprising Publisher.—"Some likes one, and some likes another. They are all good pennorths. Seen this one?"

"Yes."

"Seen that one?"

"No."

"Look what a pennorth!"

"Yes—but about the stories in this one? Are they as good, now, as the stories in that one?"

"Well, you see, some likes one and some likes another. Sometimes I sells more of one, and sometimes I sells more of another. Take 'em all the year round, and there ain't a pin, as I knows of, to choose between 'em. There's just about as much in one as there is in another. All good pennorths. Why, Lord bless your soul, just take 'em up and look for yourself, and say if they ain't good pennorths! Look what a lot of print in every one of 'em! My eye! What a lot of print for the money!"

I never got further than this, try as I might. And yet, I found the shopkeepers, both men and women, ready enough to talk on other topics. On each occasion, so far from receiving any practical hints that I was interrupting business, I found myself socially delayed in the shop, after I had made my purchase, as if I had been an old acquaintance. I got all sorts of curious information on all sorts of subjects, excepting the good pennorth of print in my pocket. Does the reader know the singular facts in connection with Everton Toffey? It is like Eau de Cologne. There is only one genuine receipt for making it in the world. It has been a family inheritance from remote antiquity. You may go here, there, and everywhere, and buy what you think is Everton Toffey (or Eau de Cologne); but there is only one place in London, as there is only one place in Cologne, at which you can obtain the genuine article. That information was given me at one penny journal shop. At another, the proprietor explained his new system of Stay-making to me. He offered to provide my wife with something that would support her muscles and not pinch her flesh; and, what was more, he was not the man to ask for his bill, afterwards, except in the case of giving both of us perfect satisfaction. This man was so talkative and intelligent: he could tell me all about so many other things be-

sides stays, that I took it for granted he could give me the information of which I stood in need. But here again I was disappointed. He had a perfect snow-drift of penny journals all over his counter—he snatched them up by handfuls, and gesticulated with them cheerfully; he smacked and patted them, and brushed them all up in a heap, to express to me that "the whole lot would be worked off by the evening;" but he, too, when I brought him to close quarters, only repeated the one inevitable form of words: "A good pennorth; that's where it is! Bless your soul, look at any one of them for yourself, and see what a pennorth it is!"

Having, inferentially, arrived at the two conclusions that the Unknown Public reads for amusement, and that it looks to quantity in its reading, rather than to quality, I might have found it difficult to proceed further towards the making of new discoveries, but for the existence of a very remarkable aid to inquiry, which is common to all the penny novel-journals alike. The peculiar facilities to which I now refer, are presented in the Answers to Correspondents. The page containing these is, beyond all comparison, the most interesting page in the penny journals. There is no earthly subject that it is possible to discuss, no private affair that it is possible to conceive, which the amazing Unknown Public will not confide to the Editor in the form of a question, and which the still more amazing editor will not set himself seriously and resolutely to answer. Hidden under cover of initials, or Christian names, or conventional signatures, such as Subscriber, Constant Reader, and so forth, the editor's correspondents seem, many of them, to judge by the published answers to their questions, utterly impervious to the senses of ridicule or shame. Young girls beset by perplexities which are usually supposed to be reserved for a mother's or an elder sister's ear only, consult the editor. Married women, who have committed little frailties consult the editor. Male jilts in deadly fear of actions for breach of promise of marriage, consult the editor. Ladies whose complexions are on the wane, and who wish to know the best artificial means of restoring them, consult the editor. Gentlemen who want to dye their hair, and get rid of their corns, consult the editor. Inconceivably dense ignorance, inconceivably petty malice, and inconceivably complacent

vanity, all consult the editor, and all, wonderful to relate, get serious answers from him. No mortal position is too difficult for this wonderful man; there is no change of character as general referee, which he is not prepared to assume on the instant. Now he is a father, now a mother, now a schoolmaster, now a confessor, now a doctor, now a lawyer, now a young lady's confidante, now a young gentleman's bosom friend, now a lecturer on morals, and now an authority in cookery.

However, our present business is not with the editor, but with his readers. As a means of getting at the average intelligence of the Unknown Public,—as a means of testing the general amount of education which they have acquired, and of ascertaining what share of taste and delicacy they have inherited from Nature—these extraordinary Answers to Correspondents may fairly be produced in detail, to serve us for a guide. I must premise that I have not maliciously hunted them up out of many numbers; I have merely looked into five sample copies of five separate journals,—all, I repeat, bought accidentally, just as they happened to catch my attention in the shop windows. I have not waited for bad specimens, or anxiously watched for good: I have impartially taken my chance. And now, just as impartially, I dip into one journal after another, on the Correspondents' page, exactly as the five happen to lie on my desk. The result is, that I have the pleasure of presenting to those ladies and gentlemen who may honor me with their attention, the following members of the Unknown Public, who are in a condition to speak quite unreservedly for themselves.

A reader of a penny novel-journal who wants a receipt for gingerbread. A reader who complains of fullness in his throat. Several readers who want cures for grey hair, for warts, for sores on the head, for nervousness, and for worms. Two readers who have trifled with Woman's affections, and who want to know if Woman can sue them for breach of promise of marriage. A reader who wants to know what the sacred initials I. H. S. mean, and how to get rid of small-pox marks. Another reader who desires to be informed what an esquire is. Another who cannot tell how to pronounce picturesque and acquiescence. Another who requires to be told that *chiaroscuro* is a term used by painters. Three readers who want to know how to soften ivory,

how to get a divorce, and how to make black varnish. A reader who is not certain what the word Poems means; not certain that *Mazeppa* was written by Lord Byron; not certain whether there are such things in the world as printed and published Lives of Napoleon Bonaparte.

Two afflicted readers, well worthy of a place by themselves, who want a receipt apiece for the cure of knock-knees; and who are referred (it is to be hoped, by a straight-legged editor) to a former answer, addressed to other sufferers, which contains the information they require.

Two readers respectively unaware, until the editor has enlightened them, that the author of Robinson Crusoe was Daniel Defoe, and the author of the Irish Melodies Thomas Moore. Another reader, a trifle denser, who requires to be told that the histories of Greece and Rome are ancient histories, and the histories of France and England modern histories.

A reader who wants to know the right hour of the day at which to visit a newly-married couple. A reader who wants a receipt for liquid blacking.

A lady reader who expresses her sentiments prettily on crinoline. Another lady reader who wants to know how to make crumpets. Another who has received presents from a gentleman to whom she is not engaged, and who wants the editor to tell her whether she is right or wrong. Two lady readers who require lovers and wish the editor to provide them. Two timid girls who are respectively afraid of a French invasion and dragon-flies.

A sad dog of a reader who wants the private address of a certain actress. A reader with a noble ambition who wishes to lecture, and wants to hear of an establishment at which he can buy discourses ready made. A natty reader, who wants German polish for boots and shoes. A sore-headed reader, who is editorially advised to use soap and warm water. A virtuous reader, who writes to condemn married women for listening to compliments, and who is informed by an equally virtuous editor that his remarks are neatly expressed. A guilty (female) reader, who confides her frailties to a moral editor, and shocks him. A pale-faced reader, who asks if she shall darken her skin. Another pale-faced reader, who asks if she shall put on rouge. An undecided reader, who asks if

there is any inconsistency in a dancing-mistress being a teacher at a Sunday school. A bashful reader, who has been four years in love with a lady, and has not yet mentioned it to her. A speculative reader, who wishes to know if he can sell lemonade without a license. An uncertain reader, who wants to be told whether he had better declare his feelings frankly and honorably at once. An indignant female reader, who reviles all the gentlemen in her neighborhood because they don't take the ladies out. A scorbutic reader, who wants to be cured. A pimply reader in the same condition. A jilted reader, who writes to know what his best revenge may be, and who is advised by a wary editor to try indifference. A domestic reader, who wishes to be told the weight of a newly-born child. An inquisitive reader, who wants to know if the name of David's mother is mentioned in the Scriptures.

Here are ten editorial sentiments on things in general, which are pronounced at the express request of correspondents, and which are therefore likely to be of use in assisting us to form an estimate of the intellectual condition of the Unknown Public:

1. All months are lucky to marry in, when your union is hallowed by love.
2. When you have a sad trick of blushing on being introduced to a young lady, and when you want to correct the habit, summon to your aid a manly confidence.
3. If you want to write neatly, do not bestow too much ink on occasional strokes.
4. You should not shake hands with a lady on your first introduction to her.
5. You can sell ointment without a patent.
6. A widow should at once and most decidedly discourage the lightest attentions on the part of a married man.
7. A rash and thoughtless girl will scarcely make a steady thoughtful wife.
8. We do not object to a moderate quantity of crinoline.
9. A sensible and honorable man never flirts himself, and ever despises flirts of the other sex.
10. A collier will not better his condition by going to Prussia.

At the risk of being wearisome, I must once more repeat that these selections from the Answers to Correspondents, incredibly absurd as they may appear, are presented

exactly as I find them. Nothing is exaggerated for the sake of a joke; nothing is invented, or misquoted to serve the purpose of any pet theory of my own. The sample produced of the three million penny readers is left to speak for itself; to give some idea of the social and intellectual materials of which a portion, at least, of the Unknown Public may fairly be presumed to be composed. Having so far disposed of this first part of the matter in hand, the second part follows naturally enough of its own accord. We have all of us formed some opinion by this time on the subject of the Public itself: the next thing to do is to find out what that Public reads.

I have already said that the staple commodity of the journals appears to be formed of stories. The five specimen copies of the five separate weekly publications now before me, contain, altogether, ten serial stories, one reprint of a famous novel (to be hereafter referred to), and seven short tales, each of which begins and ends in one number. The remaining pages are filled up with miscellaneous contributions, in literature and art, drawn from every conceivable source. Pickings from Punch and Plato; wood-engravings, representing notorious people and views of famous places, which strongly suggest that the original blocks have seen better days in other periodicals; modern and ancient anecdotes; short memoirs; scraps of poetry; choice morsels of general information; household receipts, riddles, and extracts from moral writers; all appear in the most orderly manner, arranged under separate heads, and cut up neatly into short paragraphs. However, the prominent feature in each journal is the serial story, which is placed, in every case, as the first article, and which is illustrated by the only wood-engraving that appears to have been expressly cut for the purpose. To the serial story, therefore, we may fairly devote our chief attention, because it is clearly regarded as the chief attraction of these very singular publications.

Two of my specimen-copies contain, respectively, the first chapters of new stories. In the case of the other three, I found the stories in various stages of progress. The first thing that struck me, after reading the separate weekly portions of all five, was their extraordinary sameness. Each portion purported to be written (and no doubt was writ-

ten) by a different author, and yet all five might have been produced by the same man. Each part of each successive story, settled down in turn, as I read it, to the same dead level of the smoothest and flattest conventionality. A combination of fierce melodrama and meek domestic sentiment; short dialogues and paragraphs on the French pattern, with moral English reflections of the sort that occur on the top lines of children's copy-books; incidents and characters taken from the old exhausted mines of the circulating library, and presented as complacently and confidently as if they were original ideas descriptions and reflections for the beginning of the number, and a "strong situation," dragged in by the neck and shoulders, for the end—formed the common literary sources from which the five authors drew their weekly supply; all collecting by the same means; all carrying it in the same quantities; all pouring it out before the attentive public in the same way. After reading my samples of these stories, I understood why it was that the fictions of the regularly-established writers for the penny journals are never republished. There is, I honestly believe, no man, woman, or child in England, not a member of the Unknown Public, who could be got to read them. The one thing which it is possible to advance in their favor is, that there is apparently no wickedness in them. There seems to be an intense in-dwelling respectability in their dullness. If they lead to no intellectual result, even of the humblest kind, they may have, at least, this negative advantage, that they can do no moral harm. If it be objected that I am condemning these stories after having merely read one number of each of them, I have only to ask in return, whether anybody ever waits to go all through a novel before passing an opinion on the goodness or the badness of it? In the latter case, we throw the story down before we get through it, and that is its condemnation. There is room enough for promise, if not for performance, in any one part of any one genuine work of fiction. If I had found the smallest promise in the style, in the dialogue, in the presentation of character, in the arrangement of incident, in any of the five specimens of cheap fiction before me, each one of which extended, on the average, to ten columns of small print, I should have gone on gladly and hopefully to the next number. But I discovered nothing

of the sort; and I put down my weekly sample, just as an editor, under similar circumstances, puts down a manuscript, after getting through a certain number of pages—or a reader a book.

And this sort of writing appeals to a monster audience of at least three millions! The former proprietor of one of these penny journals commissioned a thoroughly competent person to translate *The Count of Monte Christo*, for his periodical. He knew that there was hardly a language in the civilized world into which that consummate specimen of the rare and difficult art of story-telling had not been translated. In France, in England, in America, in Russia, in Germany, in Italy, in Spain, Alexandre Dumas had held hundreds of thousands of readers breathless. The proprietor of the penny journal naturally thought that he could do as much with the Unknown Public. Strange to say, the result of this apparently certain experiment was a failure. The circulation of the journal in question, seriously decreased from the time when the first of living story-tellers became a contributor to it. The same experiment was tried with the *Mysteries of Paris* and the *Wandering Jew*, only to produce the same result. Another penny journal gave Dumas a commission to write a new story, expressly for translation in its columns. The speculation was tried, and once again the inscrutable Unknown Public held back the hand of welcome from the spoilt child of a whole world of novel-readers.

How is this to be accounted for? Does a rigid moral sense permeate the Unknown Public from one end of it to the other, and did the productions of the French novelists shock that sense from the very outset? The page containing the Answers to Correspondents would be enough in itself to dispose of this theory. But there are other and better means of arriving at the truth, which render any further reference to the correspondents' page unnecessary. Some time since, an eminent novelist (the only living English author, with a literary position, who has, as yet, written for the Unknown Public) produced his new novel in a penny journal. No shadow of a moral objection has ever been urged by any readers against the works published by the author of *It Is Never Too Late To Mend*; but even he, unless I have been greatly misinformed, failed to make the impression that

had been anticipated on the impenetrable three millions. The great success of his novel was not obtained in its original serial form, but in its republished form, when it appeared from the Unknown to the Known Public. Clearly, the moral obstacle was not the obstacle which militated against the success of Alexandre Dumas and Eugene Sue.

What was it then? Plainly this, as I believe. The Unknown Public is, in a literary sense, hardly beginning, as yet, to learn to read. The members of it are evidently, in the mass, from no fault of theirs, still ignorant of almost every thing which is generally known and understood among readers whom circumstances have placed, intellectually and socially, in the rank above them. The mere references in Monte Christo, The Mysteries of Paris, and White Lies (the scene of this last English fiction having been laid on French ground), to foreign names, titles, manners and customs, puzzled the Unknown Public on the threshold. Look back at the answers to correspondents, and then say, out of fifty subscribers to a penny journal, how many are likely to know, for example, that *Mademoiselle* means Miss? Besides the difficulty in appealing to the penny audience caused at the beginning by such simple obstacles as this, there was the great additional difficulty, in the case of all three of the fictions just mentioned, of accustoming untried readers to the delicacies and subtleties of literary art. An immense public has been discovered: the next thing to be done is, in a literary sense to teach that public how to read.

An attempt, to the credit of one of the penny journals, is already being made. I have mentioned, in one place, a reprint of a

novel, and later, a remarkable exception to the drearily common-place character of the rest of the stories. In both these cases I refer to one and the same fiction—to the *Kenilworth* of Sir Walter Scott, which is now being reprinted as a serial attraction in a penny journal. Here is the great master of modern fiction appealing, at this time of day, to a new public, and (amazing anomaly!) marching in company with writers who have the rudiments of their craft still to learn! To my mind one result seems certain. If *Kenilworth* be appreciated by the Unknown Public, then the very best among living English writers will one of these days be called on, as a matter of necessity, to make their appearance in the pages of the penny journals.

Meanwhile, it is perhaps hardly too much to say, that the future of English fiction may rest with this Unknown Public, which is now waiting to be taught the difference between a good book and a bad. It is probably a question of time only. The largest audience for periodical literature, in this age of periodicals, must obey the universal law of progress, and must, sooner or later, learn to discriminate. When that period comes, the readers who rank by millions, will be the readers who give the widest reputations, who return the richest rewards, and who will, therefore, command the service of the best writers of their time. A great, an unparalleled prospect awaits, perhaps, the coming generation of English novelists. To the penny journals of the present time belongs the credit of having discovered a new public. When that public shall discover its need of a great writer, the great writer will have such an audience as has never yet been known.

WROUGHT IRON FOR CANNON.—In order to obtain, as far as may be, the strength of wrought iron instead of that of cast-iron for cannon, it is proposed to form a body for the gun, containing the calibre and breech as now formed of cast-iron, but with walls of only about half the thickness of the diameter of the bore. Upon this body are placed rings or hoops of wrought iron, in one, two, or more layers. Every hoop is formed with a screw or thread upon its inside to fit to a corresponding screw or thread upon the body of the gun first, and afterwards upon each layer that is embraced by another layer. These hoops are made a little, say one-thou-

sandth part of their diameters, less upon their insides than the parts that they inclose. They are then expanded by heat, and being turned on to their places are suffered to cool, when they shrink and compress—first the body of the gun, and afterwards each successive layer all that it incloses. This compression is made such that, when the gun is subjected to the greatest force, the body of the gun and the several layers of rings will be distended to the fracturing point at the same time, and thus all take a portion of the strain up to its bearing capacity.—*National Intelligencer*

From The Saturday Review.
THE DRAMATIC COLLEGE.

ON the morning of Wednesday last, a scene was enacted on the stage of the Princess's Theatre, even more striking than the many brilliant tableaux that are to be witnessed every evening on the same spot. Mr. Henry Dodd, a gentleman whose name had never been heard of beyond the circle of his own immediate connections, had leaped into celebrity by an act of munificence in which charity and eccentricity appeared singularly combined. He had offered a piece of ground measuring five acres, as the fitting spot for the erection of a set of almshouses to be occupied by veteran actors and actresses, on the sole condition that the members of the histrionic profession should declare their willingness to take it. An old proverb teaches us, that we ought not to look a gift-horse in the mouth, and in this case, the steed was so very unexceptionable that even the closest examination of its teeth could not warrant a refusal. A provisional committee had therefore provisionally accepted the offer, and the general meeting that was held at the Princess's Theatre on Wednesday had only to declare their approval of this very hazardless venture on the part of their self-constituted representatives, who comprised rival managers, rival actors, rival chiefs of light literature, men of high standing in pictorial art, and aristocratic patrons of the drama. Under such circumstances, a collision of contrary opinions was impossible. "Will you have five acres of good land, or will you go without them?" is a question that practically admits of but one answer, especially when the gold comes gilt, and the violet perfumed, with the additional offer of a hundred guineas for the furtherance of building operations, as was the case in this instance.

The only contest, therefore, was in deeds and words of munificence. Mr. Charles Kean had gratuitously lent his theatre as a place fitting for the assembly, and had also consented to fill the chair, notwithstanding his repugnance to any public exhibition of himself not immediately connected with his professional duties. The Drury Lane and Covent Garden Funds—charitable institutions which, through the altered condition of theatrical affairs, are daily becoming more insignificant—had rushed into the scheme with an expressed wish to build the first and sec-

ond of the required almshouses; and the General Theatrical Fund, which is of far more practical utility, imitated its somewhat decrepit predecessors by promising to add a third domicile to the other two. The work of competition had thus fairly begun before the meeting was held, and was ready to be carried further as soon as the "profession" *en masse* were gathered together. Nor was the opportunity lost. Mr. Charles Kean magnificently went beyond the several "funds" by declaring that he would build a fourth house with monies drawn from his own individual pocket. Mr. Benjamin Webster, of the Adelphi, resolving also to shine in his individual capacity, bethought himself of his estates in Wales, and promised to bring therefrom as much stone as might serve for building material. The spectacle was indeed most edifying. Men generally deemed adverse to each other sunk common differences by setting down their names on one list, and astonished all hearers by a rapid interchange of compliments and civilities. Nowhere, probably, could better elements for envy, hatred, and malice have been found than within the walls of the Princess's Theatre on Wednesday morning; yet never were envy, hatred, malice, more completely subdued, or at any rate suspended, for the furtherance of a good work. A meeting of primitive Christians described by a glowing enthusiast would scarcely have presented a more perfect picture of brotherly love.

A sceptic less advanced than Pyrrho or Sextus Empiricus, might be tempted to doubt the permanence of this unanimity, so beautiful on the surface; but there was one feature about the meeting that deserved to be held sacred against the most accomplished sneerer; and that was the general determination, more or less apparent in every one of the speeches, to uphold the dignity of the histrionic profession. The professors of other arts being treated with undisputed respect, the actors were evidently resolved that they would be no longer content with the character of Pariahs. In their acknowledgment of the boon unexpectedly conferred upon them there was nothing like abject thankfulness. The fact that, for every other class, charitable institutions are abundant, while they stand without the sphere of Christian benevolence, was denounced as an injustice; and the scheme for the so-called "Dramatic

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College" seemed to open a prospect that the days, or rather the centuries, of this injustice, were approaching their close.

English actors have a perfect right to be dissatisfied with the equivocal position in which they alone are placed with respect to the rest of their countrymen. Without assenting to the absurd proposition that the stage is the best school for morals, or even desiring it to be true, we may safely assert that, as a body, English actors are just as good and just as bad as any of the classes that become famous more by the ready exercise of a natural gift than by the acquisition of profound knowledge or the maintenance

of a high moral character. They are just as virtuous and just as vicious as the ordinary run of painters, musicians, wits, Old Bailey barristers, popular lecturers, and professors of light literature. All these may be good husbands, good fathers, and good paymasters, without impediment, and may be precisely the reverse without absolute ruin; and so may actors. The comprehensive *genus*, that embraces all alike, will perhaps never be so strictly regulated by moral principles as the other *genera* that only exist through conformity with social ordinances; and it is hard indeed to visit the sins of a whole genus upon a single species.

AUREA CATENA HOMERI—(2nd S. iii. 63. 81. 104. 158. 295.)—

"Nota est sententia, omnia elementa ex se invicem generari, per rarefactionem et condensationem: ita ut venuste Anacreon:

"Et Terra nigra potat,
Potantque Ligna terram,
Potatque Pontus auras,
Sol potat ipse Pontum,
Ipsumque Luna Solem."

"Terra igitur rarefacta alit aquam; hæc ærem; ille ignem, id est æthera; æther corpora stellarum; et vicissim hæc vapores aliquos exhalant, qui condensati descendunt, augentque ærem, ut hic aquam, et hæc terram. Mirâ et suavi divinæ Providentiæ ratione,

" alterius sic
Altera poscit opem res, et conjurat amicè."

"Atque hæc est illa *Catena Homerica*, aut potius *Prophetica*, indicata *Hosæ* cap. ii. v. 21. et 22. Nec adeo absurdi vetustissimi sapientes *Ægyptiorum*, qui teste *Lucano*, 1. 10.,

. . . 'Oceano pasci Phœbumque polumque,'
crediderunt. Credidit etiam *Ambrosius*," etc.—
S. Jeremias Virgo vigilans, et olla succensa, etc.,
illustrata à *Joh. Henrico Ursino*. Norimberg,
1665.

The passage in *Hosæ* is—

"And it shall come to pass in that day, I will hear, saith the Lord, I will hear the heavens, and they shall hear the earth; and the earth shall hear the corn, and the wine and the oil; and they shall hear Jezreel."

Gray's Inn.

A. CHALLSTETH.

—Notes and Queries.

BRAHMIN'S EXPIATORY SURFEIT —"A very

strange custom prevails in some parts of India; a Brahmin devotes himself to death, by eating until he expires with the surfeit. It is no wonder that superstition is convinced of the necessity of cramming the Priest, when he professes to eat like a cormorant through a principle of religion."—*Orme's Fragments*.

NEW SORT OF MAN-OF-WAR.—The Paris correspondent of the *Times* states:

"It is said that a vessel is about to be built at Cherbourg to be called *Vaisseau-bélier* (battering-ram), a sort of man-of-war, of which the first idea belongs to the Emperor, and which is intended to act by its mass and its speed; and an expectation is expressed that the introduction of this new element into naval warfare will completely change its character."

We have reason to believe that the idea did not originate with the Emperor, and that if he has not borrowed it from an English naval officer: the latter conceived it first. Some time ago it was suggested to the Admiralty (we believe) that a most formidable application of steam power might be introduced in a vessel built and fitted solely for running down, her sharp and strong stem being her whole armament. The efficiency of such a vessel would of course depend on the combination of her weight, her speed, and quickness in turning. The obvious objection to the proposal is that the adoption of the same class of vessels by other powers would leave no advantage to any one in particular; but this supposes an equality both in the contrivance of the vessel, and the handling, the latter being a skill in which English seamen are preëminent. There is no such handling of steamers to be seen in the world as is witnessed every day in the thronged parts of the Thames.
—*Examiner*.

INDIAN SUMMER.

THERE is a time, just when the frost
Begins to pave old Winter's way,
When Autumn in a reverie lost,
The mellow daytime dreams away :

When summer comes, in musing mind,
To gaze once more on hill and dell,
To mark how many sheaves they bind,
And see if all are ripened well.

With balmy breath she whispers low ;
The dying flowers look up and give
Their sweetest incense ere they go,
For her who made their beauties live.

She enters 'neath the woodland shade,
Her zephyrs lift the lingering leaf,
And bear it gently where are laid
The loved and lost ones of its grief.

At last, old Autumn, rising, takes
Again his sceptre and his throne
With boisterous hand the tree he shakes,
Intent on gathering all his own.

Sweet Summer, sighing, flies the plain,
And waiting Winter, gaunt and grim,
Sees miser Autumn hoard his grain,
And smiles to think it's all for him.

THE ROSE-BUSH.

FROM THE GERMAN.

A CHILD sleeps under a rose-bush fair,
The buds swell out in the soft May air ;
Sweetly it rests, and on dream-wings flies
To play with the angels in Paradise.
And the years glide by.

A maiden stands by the rose-bush fair,
The dewy blossoms perfume the air ;
She presses her hand to her throbbing breast,
With love's first wonderful rapture blest.
And the years glide by.

A mother kneels by the rose-bush fair,
Soft sighs the leaves in the evening air ;
Sorrowing thoughts of the past arise,
And tears of anguish bedim her eyes.
And the years glide by.

Naked and lone stands the rose-bush fair,
Whirled are the leaves in the autumn air,
Withered and dead they fall to the ground,
And silently cover a new-made mound.
And the years glide by.

PLEASURE AND DUTY.

How men would mock at Pleasure's shows
Her golden promise, if they knew
What weary work she is to those
Who have no better work to do.

Curved is the line of beauty,
Straight is the line of duty ;
Walk by the last, and thou shalt see
The other ever follow thee.

O, righteous doom, that they who make
Pleasure their only end.

Ordering their whole life for its sake,
Miss that whereto they tend.

While they who bid stern duty lead,
Content to follow, they,
Of duty only taking heed,
Find pleasure by the way.—*Heart Music.*

THE AUTUMN.

THE Autumn time is with us ! Its approach
Was heralded, not many days ago,
By hazy skies that veiled the brazen sun,
And sea-like murmurs from the rustling corn,
And low-voiced brooks that wandered drowsily
By purling clusters of the juicy grape,
Swinging upon the vine. And now, 'tis here
And what a change hath passed upon the face
Of Nature, where thy waving forests spread,
Then robed in deepest green ! All through the
night

The subtle frost hath plied its mystic art,
And in the day the golden sun hath wrought
True wonders ; and the wings of morn and even
Have touched with magic breath the changing
leaves.

And now, as wanders the dilating eye
Athwart the varied landscape circling far,
What gorgeousness, what blazonry, what pomp
Of colors, bursts upon the ravished sight !
Here, where the maple rears its yellow crest,
A golden glory ; yonder, where the oak
Stands monarch of the forest, and the ash
Is girt with flame-like parasite, and broad
The dog-wood spreads beneath a rolling field
Of deepest crimson ; and afar, where looms
The gnarled gum, a cloud of bloodiest red !

—*Gallagher.*

A PRAYER.

FATHER, I have wandered far,
O, be now my guiding star !
Draw my footsteps back to Thee,
Set my struggling spirit free.
Save me from the doubts that roll
O'er the chaos of my soul—
Let one ray of truth illumine
And dispel the thick'ning gloom !
God of truth, and peace, and love,
Hear my prayer !
Draw my restless thoughts above—
Keep them there !

Father, save me at this hour,
From the tempter's fearful power—
Purify the hidden springs
Of my wild imaginings—
I have thought till thought is pain,
Searched for peace till search is vain.
Out of Thee I cannot find
Rest for the immortal mind.
Now I come to Thee for aid—
Peace restore !
Let my soul on Thee be stayed
Forevermore !

—*Churchman.*

From The Spectator, 18 Sept.
VILLAFRANCA.

NOTWITHSTANDING the conflicting accounts which have been given respecting the cession of Villafranca by the Sardinian Government to Russia, and notwithstanding the probability that the purpose of the act has in some degree been misrepresented, it is not difficult to perceive that the cession may have important consequences. The first account which reached the public almost amounted to a denunciation of Sardinia, for having ceded to Russia a substantial seaport and naval arsenal, less extensive indeed than Toulon, but more secure from any hostile attempt. Thus supplied with an arsenal, capacious war buildings, barracks of immense capability, it is understood that the premises have been leased to Russia for a period of ninety-nine years, on the annual payment of two millions of rubles; about, £350,000. The Sardinian papers deny that the grant of the lease amounts to anything like the territorial or political cession described, and the *Nord* of Brussels, which may be supposed to give its explanations on behalf of Russia, says that the fact is without importance. A vast steam navigation company is being established at Odessa to trade with the Levant and the Mediterranean; the company needs an entrepôt for its merchandise and vessels, and it buys one. The object of the grant, therefore, is purely commercial; the lessee is not the Russian Government but a Russian company. It is said that Napoleon the Third has expressed no disapproval; Lord Derby's Government also having acquiesced. No authentic explanation has been given on the part of any one of these Governments; and in such a case we can scarcely expect that the official authorities will hold themselves free to make apologies or explanations in reply to newspaper articles or correspondents.

In order to estimate the value and tendency of the cession, it will perhaps be safest to take the statement of the affair on the showing of the Sardinian and Russian explanations. Let us suppose that Villafranca has been conceded not to the Emperor of Russia, but to a Russian steam navigation company, on a lease of ninety-nine years. If that be so, there will be no concession of dominion on the part of the Sardinian Government, which will still exercise sovereign control over Villafranca, and, what is more to the purpose for the present consideration, will still be bound by all treaties relating to the territories of Sardinia. For example, if we are not mistaken in our construction of public law, under the case supposed Sardinia would not be able to admit Russian vessels into the port of Villa-

franca without granting the same immunities, licenses, and advantages to the vessels of any other countries holding treaties with "the most favored nation clause." We assume that statesmen so able as those of King Victor Emmanuel have thoroughly considered all the political and treaty bearings on the subject, and that Villafranca has been conceded to the Russian company on terms strictly consistent with public law, with the treaty relations of Sardinia, and with her international obligations.

During peace, however, Russian ships of war are not excluded from the ports of any friendly power. At such a port as Villafranca they would not be less admissible than they would at Genoa or at Spezzia, and the port being preoccupied by Russian merchants, Russian authorities, shipwrights, and other persons engaged in serving the marine, of course the Russian navy would find Villafranca peculiarly convenient for all purposes of victualling, repairs, &c. Nor must we forget that in Russia, there is little distinction between the acts of the Government and of a public Company,—a machinery through which the omnipresent Government so often operates. *De facto*, therefore, we may consider that through the commercial company which has become the tenant of Villafranca, Russia has acquired a maritime port available for its armed Navy.

We do not at the moment recall the exact parallel of such a cession during peace. Perhaps the nearest approach to it would be the acquisition of our own "factories" in India, where, however, we had to contend with Oriental societies not acknowledging the public law of Europe; or a still nearer approximation would be the commercial tenure which we obtained in Spanish Honduras, and which we afterwards enlarged into something practically though not nominally resembling a sovereignty, while we actually claimed and seized the island of Ruatan contiguous to the Western shore of Honduras Bay, on the ground of our squatting occupancy under a Spanish title of the mahogany lands on the Eastern shore. We cannot find any strictly legal parallel for the cession of a sea-port by one Government to another, except in our own history; where the precedents, we must confess, have no sound legal character. If we are deprived of the right of complaining, we are not released from apprehension by the character of this precedent.

And the scene of the new acquisition is conspicuously different from the Gulf of Mexico or the bay of Bengal. The Mediterranean is the great political basin of Europe, and it has been so since the history of the world began. It is surrounded by monuments of the greatest empires of antiquity,—

by Egypt, the Holy Land, Greece and Rome; by traces of the empires of the middle ages, —of Charlemagne, and the Saracens; it has been the scene of the greatest actions under the conquerors and agitators of all history from Xerxes down to Napoleon "the Great." Many of the greatest wars have turned upon Mediterranean affairs, from the time of Alexander to that of Nelson. And now during peace the Mediterranean, setting aside smaller states, is surrounded by the territories of Turkey, Greece, Austria, Naples, Sardinia, France, Spain, Egypt and England. Russia stood excluded until now, when she is introduced for the first time under favor of the Sardinian flag. The Treaty of Paris, giving effect to the conquests of the Western powers in the Crimea, has shut her war ships out of the Euxine; Sardinia has brought her into the Mediterranean. Should we look forward, as some continental prophets appear to be doing, to a time when the English fleet shall have declined, we may anticipate a great increase of the Russian, as we already witness a great increase of the French fleet; and we now have the first step of Russia, heretofore shut up in the closed seas of the Baltic and Euxine, out into the maritime waters of political Europe. It is a remarkable fact that one result of the war which began in the attempts to check Prince Menshikoff's efforts at extorting a Mediterranean port from Turkey, is this acquisition of a still more advanced Mediterranean port from Sardinia.

We must not, however, exaggerate the precise nature of the cession itself. The harbor of Villafraanca is not of vast extent; it is not a Toulon, nor a Spezzia, nor a Plymouth, nor a Cherbourg; it is not a Sebastopol, still less a Nicolaiëff; it may be more than double the size of Ramsgate, but it is in some respects less conveniently situated than that port. Its waters are far deeper, and its land-locked position renders it easily defensible; but it is distant from Russia. Completely surrounded by Italian, and we may say French territory, it has no rear. The rocky nature of the land behind renders it, like Aden, difficult to defend in that direction. It is insulated in the political sense, not in the sense of Gibraltar, which can defend itself against Spain and maintain access for English ships. It has in no respects the importance of Malta. Its so called "arsenal" is said to consist of old buildings nearly useless. The Sardinian Government has lately abandoned it as a naval port, as incommensurate with the aspirations and plans of the Piedmontese Government, whose own naval department is transferred to Spezzia, that natural Plymouth land-locked by an island breakwater. It would not be difficult for a maritime power to shut up the port of Villa-

franca; and, with aid on shore—to cut it off entirely from any kind of supplies or reliefs.

Though these considerations diminish the naval importance of the arsenal and harbor, they scarcely diminish the importance of the moral conveyed by this concession. When, following the dubious lead of France, we engaged in the war with Russia, we were in great need, not so much of reinforcements, as of some kind of more general alliance to establish on our behalf the character of acting in defence of European independence and law; the accession of Sardinia gave us that moral support. It is well understood that Sardinia furnished aid on the express understanding that the Question of Italy should be gravely entertained at the next conference of European Powers. We all remember how the masterly, fair, and substantial memorandum of D'Azeglio was treated when Cavour brought it before the conference; how one day was given to that great subject, and to four others, including the paltry grievance of the French Government against the Belgian journals. The subsequent remonstrances of the Sardinian Government at this perfunctory fulfilment of an obligation were treated with coldness. Sardinia had given her support in the Crimea, and when she presented the promissory note for payment, she was told there were "no effects." It is to be believed that even since that period the statesmen of King Victor Emmanuel have looked to the Western Powers, and especially to constitutional England, for support against that Power whose uninterrupted preparations on the frontier of Piedmont seem to point to no other design than the crushing of Sardinia. The support has *not* been given. If we are now shocked at a Russian occupation of Villafraanca, professedly for commercial purposes, we may remember that our Minister at Paris, Lord Normanby, gave a direct sanction to the French occupation of Rome for anti-constitutional purposes. Sardinia aided us in obtaining the objects of the Russian war; we have forgotten our obligations to Sardinia; and she, most reluctantly, it is to be presumed, has been the instrument of our enemy for the attainment of his object; and it is possible that the reason for that breach of consistency on the part of Sardinia may be found in a promise of support against Austria from despotic Russia, when constitutional England has failed.

From The Press.
CHINA.

WHEN we read the comments of some of our contemporaries on the stipulations made, or supposed to have been made, with the Chinese Emperor, and the expressions of joy and satisfaction with which they hail the so-

called concessions in favor of Christianity, we cannot help feeling strong sensations of uneasiness as to what the better portion of neighboring nations must think of us and of our doings. If these writers were to be taken at their word, the propagation of the Christian faith amongst the untold millions of Chinese has been the great object and the main result of our hostile proceedings.

It seems to us that, in the mode of setting about conferring this great blessing on this benighted race, England has rather followed the precepts of Mahomet than obeyed the precepts of Christ. Our zeal for the propagation of the Gospel amongst the heathen assuredly burns quite as fervently in our hearts as in those of our boasting fellow-countrymen, but, nevertheless, we are free to confess that, in giving effect to our zeal, we do entertain strong objections to all attempts at propagating our holy faith according to the injunctions of the Koran, in opposition to all the injunctions of the Gospel; and we fear that, when neighboring nations see us acting like soldiers of the Crescent, and not like soldiers of the Cross, they will think themselves justified in apostrophizing Englishmen as the Blessed Founder of our religion apostrophized the broad-philactery men of old.

"Such an apostrophe, we gladly admit, would not apply to all. For there have been, and there are, two parties in this country, which look upon British proceedings in China in totally opposite lights. The one party care for nothing but the increase of commerce, the extension of navigation, and the power to treat all nations less civilized than their own with supreme contempt, and as not of a sufficiently high standard in the scale of humanity to be entitled to the privileges of civilized nations. These men hold that in our dealings with such as the Chinese any adherence on our parts to the acknowledged laws of nations is quite unnecessary. These men lay it down, as an inevitable law of human nature, that "*barbarism must recede before civilization*," and thus are perfectly indifferent, provided that the recession takes place, whether it is justly brought about, or whether it results from civilization employing the power which knowledge confers according to the maxims of barbarism. Accordingly, when civilization, outraging justice, applies force, the eye-balls may indeed be uplifted to heaven to indicate the shock that is given to the moral sense; but the moral sense is very soon consoled, nay more, extinguished, by calling to mind the aforesaid "*inevitable law of human nature*," whereby the mind is easily reconciled to atrocities of the deepest dye. But when, in addition to the consolation which this law affords them, some fine phrases about introducing Christianity amongst the heathen

can be paraded, then they turn their devilish deeds into Christian deeds, and ostentatiously chuckle at the anticipated triumphs of the Faith: they compass heaven and earth to make proselytes, but they omit the weightier matters of the law, justice, mercy, truth. These persons (and we blush to think how vast are their numbers) could see nothing wrong in the proceedings of British authorities at Canton, when they spread fire and desolation through a thickly-peopled city, under the false pretence of avenging an insult to the British flag—an insult which never was really offered. And some day or other, when the truth comes out respecting this iniquitous aggression, we strongly suspect that it will be found that that miserably vain man, Sir John Bowring, obtained authority from the Government at home to pick a quarrel with the Chinese, *per fas aut nefas*, in order to secure an entry into the city for British subjects, and to obtain, on a flimsy pretence, the fulfilment of treaties which had been negligently permitted to remain in abeyance. These men, who sanctioned and approved this shameless outrage, are now the very men to profess such ecstasy of delight at the way being opened (as they call it) for Christianizing the Chinese.

Thanks be to God, however, there existed, and still exists, another party, whom no views of commercial gain, no greed for filthy lucre, could deter from denouncing in just and fitting terms the whole of our proceedings, from first to last, in the Canton waters. Had those proceedings been certain to pour into our laps "the wealth of Ormus and of Inde," they would have been equally held up to public execration and abhorrence. And let it be gratefully remembered that the majority of the then existing House of Commons censured those atrocities, and that a large minority of the House of Lords, headed by the present Premier, endeavored to fix on them a similar brand of condemnation. This party combined their Christian professions with Christian practice, and those who belong to this party are, we maintain, the only ones who have a right to avow pleasure at any real prospect of introducing Christianity into China.

But we confess that we have little faith in the possibility of propagating the religion of Christ by the sword. We do not believe that God's blessing will attend such an attempt, utterly opposed as it is to every Christian principle. The followers of Mahomet have indeed propagated their creed by the sword, but then this mode of action is in perfect consistency with the doctrines which their Law-giver laid down and their Koran inculcates. These men act with perfect consistency when they offer to their conquered foes death or the Koran; but Christians cannot do the like.

Supposing that those stipulations should be fulfilled, and the utmost extent of good contemplated should result from them, they would no more palliate or justify the first unjust aggression, than Lord Palmerston could justify (as he attempted at the Mansion-house) the original hostilities, by appealing to the outrages of the Chinese, which were afterwards done by them in revenge, when exasperated by those hostilities.

We confess, however, that we attach but little value to these stipulations. We believe that it will turn out that the Bible will be allowed just as much circulation, and no more, and Christianity will receive just as much toleration, and no more, as would have fallen to their lot if the treaty contained no clause of the kind in question. The Chinese authorities, in those spots where they may come into contact with Englishmen, may perhaps conform, when compelled, in particular instances, to the words of the treaty; but how, unless we can undertake to control the police, and the jurisprudence of the vast empire of China, we shall be able to secure, for the Bible or for Christian converts, the stipulated privileges, it will require wiser heads to devise than any that yet are known to grow on British shoulders. And as for regulating the police and

jurisprudence of China, though doubtless there exist many presumptuous fools who would undertake the task, yet between the attempt and any thing approaching to its realization the distance is infinitely great. Those who have studied the official reports on the Bengal police, and have ascertained the actual results of our endeavors to establish peace and security in that vast province which has so long been under our immediate rule, and within whose limits we have established the seat of our supreme Government—those who know that that police is a source of terror to the peaceful and honest—a source of protection to the thief and to the dacoit—will look down with a smile of pity or contempt on those who entertain the idle idea that we can accomplish in China what we have so utterly failed in accomplishing in Bengal.

Let us, then, estimate this much vaunted and bepraised stipulation at its real value. It is just worth nothing at all, save as a peg on which Pharisees may descant, and save as dust to blind the eyes of the honest and the good to the real character of the dealings of Great Britain with the people of China, which Sir John Bowring initiated, and Lord Palmerston, for mere party purposes, recklessly endorsed.

THE HEBRIDES.—"The Hebrides are but the shattered relics of an old land that had its mountain peaks and its glens, its streams and lakes, and may have nursed in its solitude the red deer and the eagle, but was never trodden by the foot of man. A glance at the map is enough to convince us of this. We there see islands, and peninsulas, and promontories, and deep bays, and long-retiring inlets, as though the country had been submerged and only its higher points remained above water. The conviction is impressed more strongly upon us by a visit to these shores. We sail through the windings of one of the 'sounds,' and can scarcely believe that we are on the bosom of the salt sea. Hills rise on all sides, and the water, smooth as a polished mirror, shows so pure and limpid that in the sunshine we can see the white pebbles that strew its bed many fathoms down. The eastern shore is often abruptly interrupted by long-receding lochs edged round with lofty mountains, and thus, where we had looked to see a deep heathy glen, with, perchance, a white tree-shaded mansion in the far distance, and a few dun smoking cottages in front, we are surprised to catch a glimpse of the white sails of a yacht, or the darker canvas of the herring-boats. We sail on, and soon a sudden turn brings us abruptly to the mouth of the sound. A bold headland, studded around with rocky islets,

rises perpendicularly from the sea, bleak and bare, without a bush or tree, or the faintest trace of the proximity of man. The broad swell of the Atlantic comes rolling in among these rocks, and breaks in foam against the grey cliffs overhead. In tempests, such a scene must be of the most terrific kind. Wo to the hapless vessel that is sucked into the vortex of these breakers, whose roar is sometimes heard at the distance of miles! Even in the calmest weather the white surf comes surging in, and a low sullen boom is ever reverberating along the shore."
—*Geikie's Story of a Boulder.*

PERPETUAL MOTION.—A correspondent of the London Builder thinks that the following instances come as near perpetual motion as any one can desire. In the rotunda of the Woolwich Barracks, there is, he says, a clock moved by machinery, which has been going for more than forty years. He further states that he knows a gentleman who has had a watch in his possession for more than thirty years, hermetically sealed, which there is no means of winding, that tells the day of the week, the hours, minutes, seconds, months, and, he believes, years, and how far you walk in the day. It cost about two thousand dollars, and was made by a French artist in Paris.

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